

A.I.D.'S EXPERIENCE WITH SELECTED
EMPLOYMENT GENERATION PROJECTS

A.I.D. EVALUATION SPECIAL STUDY NO. 53

by

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FOREWORD

High levels of unemployment and underemployment are endemic to most developing countries. The reasons offered to explain high unemployment are similar to those used to explain why developing countries are undeveloped: lack of capital, lack of education and training, weak institutions, and an inappropriate policy environment.

Within the Agency for International Development (A.I.D.), the unemployment issue arises repeatedly in discussions of country development strategies and individual projects. There are questions concerning its magnitude and the ability to affect it directly through assistance programs.

A.I.D. needs to better understand the employment problem in developing countries and its relationship to other development issues. The Agency needs to examine what approaches have worked and why. This kind of analysis is particularly important because of the diversity of employment projects, which have been designed to solve different types of problems: vocational education, labor-intensive infrastructure, food for work, export promotion, and small-scale enterprise credit and technical assistance. In addition, there are projects and programs that focus on improving the government policy environment affecting employment.

In an attempt to better inform A.I.D. and the development community, the author has reviewed the literature on employment, including A.I.D. policy and strategy papers and more than 30 evaluation reports on completed A.I.D. projects. The paper does an excellent job of defining the employment problem and analyzing various approaches for addressing it. This report represents the author's own perspective and analysis of the issues and experience with various types of projects. It should be useful for those involved in developing programs and policies designed to increase employment in developing countries.

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PREFACE

This paper was prepared for the Center for Development Information and Evaluation (CDIE) and was based on research completed in January 1986. Special thanks are due to Loretta Luhman, who did the digging in the archives, suffered the many disappointments of missing evaluation data with good cheer, and drafted most of the tables and the sections concerning the projects. Also, Daniel Westrick of CDIE provided the project information that was available in A.I.D.'s data base through MINISIS.

SUMMARY

Rapid population growth and policy distortions that have weakened both the formal and informal sectors of the economies of developing countries have retarded a transformation in the sectoral structure of the labor force. As a result, vast numbers of people remain in low-productivity agricultural, off-farm, and urban activities. They need to be moved into productive employment, which is the major link between growth and equity. The Agency for International Development (A.I.D.) has initiated projects that were designed to increase employment.

This report is based on an examination of over 30 projects designated as "employment generation" in as many countries during the period from the early 1970s to 1982. The focus is on the policy environment of these projects, building on a World Bank study that highlights the positive relationship between growth, equity, and an economy relatively free of distortions in foreign exchange, factor, and product pricing.

While details vary among projects, and many interesting aspects of successful employment generation projects are revealed in this study, one major conclusion must be stressed. The policy environment is the single most important determinant of project success. Although not examined directly in the study, three related suggestions can be gleaned from the overall economic background of the economies examined. First, the administrative environment (contract laws, public accountancy, ease of entry into business, "honest weights and measures," and the like) can reduce the effectiveness of projects in otherwise supportive policy environments. Second, the continued provision and expansion of social overhead capital, such as education and health, is an important foundation for the expansion of the private sector. Third, the informal sector exhibits extraordinary vitality, and further attempts by A.I.D. to understand that vitality may pay large dividends in future A.I.D. programming.

Employment generation projects work best in fast-growing economies free of policy distortion, but typically that is where they are least needed. In a sense, employment generation may be a somewhat misleading concept. Labor, for example, is not scarce, and the constraint is capital and associated inputs. The employment "problem," therefore, might be more appropriately construed as one of scarcity or poor quality of inputs other than labor. Second, the data on labor forces in developing countries are grossly inadequate, so that whatever one says in the way of policy recommendation rests on a weak empirical base. Finally, measured unemployment as such may not be much of a problem compared with other problems developing countries face, especially underemployment. The data on underemployment, however, are even worse than those on unemployment.

Under these circumstances, prudence suggests an emphasis on the use of abundant resources and on those policy constraints that reduce growth. Growth is directly related to employment, and unless the technology of production changes sharply, or prices become rigged in favor of capital so that capital is substituted for labor, increased growth means increased employment.

Although a growing body of scholarship suggests caution in blanket endorsements of policy reform,¹ the relationship between employment and growth is strong. Essentially, there is little that

¹For example, see Elliot Berg and Alan Batchelder, "Structural Adjustment Lending: A Critical Analysis." This study was written for the Office of Economic Affairs of the Bureau for Program and Policy Coordination, A.I.D., draft dated May 1984. A later version with the same title was issued by the World Bank's

A.I.D. can do through employment projects if a developing country has a hostile policy environment that inhibits growth. If A.I.D. is to help in this regard, then inappropriate policies must be changed. With correct policies, the expectation is that competitive forces in both product and factor markets will direct resources into their most efficient uses. Set the market free and it will do the job.

It is important to note, however, the danger in this logic. Even efficient resource allocation will not remove all difficulties, and there will remain wide problem areas in which A.I.D. can play a positive role. For example, a developing country may need help in identifying problem areas at the policy or project level. The need for trained manpower now becomes urgent. Institutional changes come in rapid succession, requiring market research, establishment of technical standards, improved raw material supplies, refinement of government regulations, a more sophisticated tax policy, and the like. New credit channels must be explored. Some infrastructure problems require immediate solution. The list of possible contributions that A.I.D. can make to development multiply exponentially as the policy environment improves. Finally, even when the economy is working well there may be pockets (sometimes quite large) of unemployed and underemployed people that will require imaginative and timely assistance that balances relief with incentives.

At the most general level, a review of the policy environment in countries with A.I.D. employment generation projects suggests that in most cases the environment was not impossibly hostile to the projects' success, although it was never optimal. Also, some policies were more important than others to given projects, so the policy mix has to be examined in each case. We comment below on the five kinds of projects surveyed here and on the policy contexts in which they were carried out.

Successful vocational education projects require a rising demand for labor, and this demand is most directly linked to the economic growth rate and to the relative cost of capital and labor. While Nigeria's growth rate was high, the capital market was highly distorted and labor itself tended to be overpriced. Ghana did not even have the benefit of a high growth rate. In contrast, high growth rates in Ecuador, the Dominican Republic, and Thailand were combined with relatively more favorable policies. Other things aside, one can conclude that employment generation projects had less economic merit in Nigeria and Ghana, and more merit in the other three countries. Formal education programs (as best we can discern from limited data) were much more expensive than the one informal program reviewed, yet these programs were not much more successful in terms of placement rates and were far less successful in terms of numbers of people trained.

Labor-intensive infrastructure projects, if they are to have positive secondary and tertiary effects on production and employment, must occur in a reasonably well-integrated economy. Backward and forward linkages (suppliers and purchasers) affect the income multiplier of a given expenditure. Generally, the higher the degree of industrialization, the greater the likelihood that the parts of the economy will be tied together in functional ways. Urbanization also reflects integration in terms of access to markets and the economies of scale achieved through "clustering" of suppliers in various lines.

Kenya, with its low level of integration and medium levels of policy distortion, seemed inhospitable to labor-intensive projects. Second- and third-round effects will be minimal under these circumstances. Both Indonesia and Jamaica had medium levels of integration, but Jamaica has policies designed to reduce employment and to weaken projects that would stimulate employment. Capital was very underpriced and labor was very overpriced. In general, lack of maintenance prevented the development of capacity for long-run productive benefits and employment. While design can compensate in the short run for a poor policy environment, in the long run, when an infrastructure project is expected to eliminate bottlenecks to increased agricultural production, high agricultural price distortions can prevent project success.

Special note must be taken of the dependence on private contractors in labor-intensive projects. Unless there are specific contractual obligations to the contrary, in achieving a given task a contractor will tend to minimize the cost of production. Thus, overvalued exchange rates, overpriced labor, or underpriced capital will work to the disadvantage of employment in such projects.

Food-for-work projects are affected by such a wide variety of factors that it is impossible to isolate a single aspect of the policy environment as more important than another to the success of projects. Special note can be taken, however, of the questionable extent to which food-for-work projects create permanent productive assets. Aside from the obvious case of poor maintenance, assets can be wasted if they are created in an economic environment in which they will not be used. A high rate of growth may be the single best test of whether such assets will be used productively.

Export promotion projects depend heavily for success on appropriate foreign exchange rates. Overvalued rates reduce exports and tend to increase imports. Only Kenya had low levels of distortion in this area (they were rather high in the 1970s but improved in the early 1980s), combined with medium levels of inflation and medium levels of distortion in capital and labor markets. Uruguay had greatly overvalued rates, and these were combined with high levels of distortion in agricultural taxation and capital costs. The Honduras picture is one of medium levels of distortion in exchange rates and capital costs but high levels in labor costs. Thus, an increase in exports, other factors aside, would tend not to be associated with increases in employment. (Since the project in Honduras was based on a farmers cooperative, this consideration is not applicable here.) The results of export promotion projects in these three countries were very mixed, with the Honduras project marginally successful, the Uruguay project marketing about 40 percent of increased production internally, and the Kenya project failing to reach planned export levels.

Of the 11 countries with sampled small-scale enterprise credit and technical assistance projects, one had a high rate of inflation (Chile) and one a low rate (Ecuador), with the rest at medium levels. Inflation tends to decapitalize lending institutions under conditions where the price of credit is restrained. Effectiveness of credit programs is also highly dependent on the growth rate. Six of the countries experienced good growth of 2 percent or more in per capita gross domestic product (GDP). Peru, Chile, Upper Volta (now Burkina Faso), Niger, and Benin had weak or negative growth rates, which would tend to retard growth and profits in enterprises borrowing capital. In addition, most of these countries had low levels of integration (and therefore weak spread effects from capital usage), medium-to-high levels of distortion in capital markets, and mixed levels of distortion in labor markets. In general, these countries appeared to be poor candidates for credit or technical assistance projects. At the same time, some of the projects in these countries succeeded rather well (in Chile, for example).

In sum, direct action in the past to provide employment through A.I.D. projects has been of mixed success. One lesson suggested by this experience is that A.I.D. concentrate its efforts at the policy rather than the production level. Attempts to stimulate employment directly will often be seen as forced and of somewhat limited value. Such projects are management and sometimes resource intensive at a time when both are subject to increasing constraints.

Standard (neoclassical) economic analysis in general guides the economic thinking of most official development agencies. In this approach, the relationship between capital and labor is expressed in a "production function" based on a given technology. Within this framework, growth is related to employment, and unless the technology of production changes sharply, or prices become rigged in favor of capital so that capital is substituted for labor, or management succeeds in using resources more efficiently, increased growth means increased employment. This is the basic conceptual underpinning of this study. It is an approach fundamentally different from that taken in most evaluations within A.I.D., which rest on a review of a given project in relation to the four standard components of the project's logical framework (inputs, outputs, purpose, goal).

We have discussed the policy environment mainly as it relates to distortions in foreign exchange, factor, and product pricing. These are indeed large pieces of the economic environment affecting individual enterprises. However, this approach needs to be supplemented by an equal emphasis on what might be called the "administrative environment." This would include, beginning with Adam Smith, "honest weights and measures," and would extend, for example, to ease of entering business, predictability of government actions, an enforceable system of contracts, a reputable system of public accountancy, a system of property rights, the adequate provision of what has been called social overhead capital, a broad-based system of primary education, and a system of risk sharing.

This partial list of important factors is a reminder that these institutional characteristics are as important in determining how effectively a country uses its resources as any configuration of policies. In many countries today, these institutions are dysfunctional, discouraging enterprise even before it gets started and inhibiting its growth once underway.

Historically, institutional change occurs (1) when the possibilities of such change are known, which, in turn, rests on information flows; (2) when the present discounted value of change exceeds the cost of change; and (3) when it is reasonably certain that the gains (point 2 above) may be retained by the innovator, which suggests efforts to reduce risk and uncertainty and to establish property rights. There is no apparent way to quantify the gains made through institutional change in the abstract. Nevertheless, it is not unreasonable to speculate that A.I.D. resources directed toward such change may have a quantitative and long-lasting impact on employment equal to that gained from direct employment generation projects.

Among the projects surveyed here, some in good policy environments failed while some in hostile environments succeeded. As best we can tell, the costs of job creation varied widely among projects and in some cases were so high as to be economically indefensible (whether they were politically indefensible is a different question). Without better knowledge, nevertheless, our review suggests the need for some special defense of projects in policy environments that would appear to doom them to failure. A purely political defense by itself is rather misleading to policy managers and programmers because it ignores the costs and benefits to be achieved politically through alternative projects that might be more productive.

Special note must be taken of two areas requiring continuing and rather urgent attention among all donors. First, given the extremely adverse debt position of developing countries, and their continuing and growing need for imports, export promotion will drive policy formulation for years to come in many countries. A.I.D.'s efforts to date in attempting to stimulate exports merit special study. At the same time, however, there are ominous signs on the international economic horizon that may necessitate yet another reappraisal of export promotion as it becomes relatively more difficult for countries just beginning to export to enter world markets.

Second, the urban informal sector, with all its problems, will continue to be a major "employer" of new entrants to the labor force for decades to come. This sector has been hurt badly in the past by general policies inhibiting new enterprise and by a policy cluster known as import substitution. As this latter strategy is now being rejected by increasing numbers of developing countries, or at least being balanced more rationally with other strategies, further attempts to understand the vitality of the informal sector may pay large dividends.

To sum up, this review of employment generation projects encountered no scandals, no wildly irrelevant projects. Some resources were indeed wasted in the economic sense, and an outside observer must assume that there were compelling non-economic reasons for the projects. Vocational education programs as tools of employment generation seemed to have had poor payoffs, suggesting caution in their future use. Labor-intensive infrastructure and food-for-work projects both seem promising on paper, yet are complicated by multiple problems and typically affect relatively small numbers of workers. In both cases, but especially in food-for-work projects, economic analysis needs to be strengthened if such projects are to play a more effective role in development.

Export promotion is in its infancy within A.I.D., and projects in this area are closely tied to exchange rates. A World Bank study (Agarwala 1983) suggests that such rates were the single variable most closely associated with relatively high economic growth rates. Given the growing importance of exports, employment generation efforts in the future might be focused more on exports. Credit and technical assistance projects to stimulate small-scale enterprise provided some employment, but sometimes at great cost per job.

Each reader of this report can probably remember an employment generation project that worked quite well. Yet, the question is not whether projects can generate employment. In most cases they can. Rather, the question needs to be stated in this way: Is a given project the best use of resources to achieve the employment goal?

The impression one derives from this small sample is that considerable work and resources went into efforts to directly increase employment and that in general the results were middling or disappointing. Women were usually not given special consideration, or it was given as an afterthought. Equity was not always served. Management was typically difficult, and projects were always hostage to an economic and administrative environment beyond the control of project managers.

Thus, in a world of unlimited needs and constrained A.I.D. budgets, the question of what to do to promote employment becomes one of priorities. Limited budget allocations within A.I.D. directed toward employment generation suggest that the A.I.D. "system" has already decided the issue, concentrating on projects with longer term growth payoffs rather than short-term employment and relying more on policy change to increase employment. And yet, emerging crises draw attention back to

efforts to improve employment in the short run. This short- versus long-run perspective may be one of the central management problems for A.I.D. in the years ahead. Policymakers will be helped in this circumstance by a strengthening of project and program evaluation so that experience becomes a better guide to practice.

On this note, one procedural problem encountered in this study merits highlighting. This was the problem of establishing the empirical basis for the study. From the outset, we were hampered by the paucity of evaluations available and by their highly variable quality.

For reasons that do not need recounting within the Agency, most evaluation resources are used by the regional bureaus for ongoing and end-of-project evaluations. No common methodologies are used, even for given types of projects. Some evaluations reach the Washington office of the bureau, some do not. Some evaluations that reach Washington are deposited in a data file or library, some are not.

This suggests that in the regional bureaus, where most evaluation is carried out, there is no system of evaluation that can at the same time serve the larger needs of the entire Agency. Instead, ad hoc evaluations are carried out to satisfy various administrative and other requirements, and occasionally these are fed back into project design in the fortunate instance when a single individual is involved with both functions. Given the turnover of personnel, however, some unknown but apparently rather high level of knowledge concerning what worked and why in the case of a given project is lost forever. While such a system might be consistent with local Mission autonomy, and may fit in well with growing autonomy under present plans, it represents a rejection of the benefits of social science so widely sought in other lines of activity.

A modest beginning can be made toward systematization of evaluations and their results by coming to some agreement on the rudiments of evaluation in various areas. For example, the basis for calculating the cost per job created can be examined and consensus reached on the appropriate basis to be used in evaluation. Similarly, ways of measuring the number of jobs created under various schemes can be outlined. Without some commonality in evaluation, systematic comparative examination of projects is impossible.

This study of five kinds of employment generation projects, as well as a survey of literature on employment generation, suggests that one can identify conditions under which such projects have good chances for success. Some of these are indicated in the text at the conclusion of each of the sections on specific kinds of projects; a more extensive list is provided in Appendix A. Below is a sampling of the kinds of considerations that must underlie establishment of employment generation projects.

Vocational Training

1. Training for specific occupations has a low payoff in stagnant economies and probably should be avoided.
2. Training for the "market" is not nearly as effective in providing employment as is training directed at the needs of specific employers, supplemented by active employer involvement in the project.

3. Most successful vocational training programs are flexible regarding curriculum and methods of instruction. This may suggest locating such programs outside of ministries with strong commitments and vested interests in bureaucratic stability and established ways of doing things.

Labor-Intensive Infrastructure

1. Social and cultural factors are particularly important in this kind of project, especially under conditions whereby laborers are bound to a patron on an annual basis or their earnings are encumbered by the patron.

2. Local authority in the selection of projects needs to be guided by strong central leadership setting specific guidelines for project acceptability.

3. A project must ensure sufficient training of leaders so that leaders are not drawn away from other sectors.

Food for Work

1. The project will work with the fewest complications when there is inadequate local food production and local food is not available commercially.

2. Public works financed in part with food for work must be small enough that wage payments in kind do not exert a disincentive effect on local agricultural production.

3. When asset creation is one objective of food-for-work projects, but no stable provision is made for maintenance of that asset, then the assistance provided is essentially "relief," and a case can be made that it should be administered as such with attendant economies of administration.

Export Promotion

1. Successful export promotion projects require a wage policy that is tied to productivity, not to social benefit.

2. The necessary infrastructure must be in place at the outset of an export promotion program.

3. Economic analysis must determine at the outset that the projects chosen have a comparative advantage, rely on relatively elastic factor supplies, and enjoy relatively high price and income elasticities of demand.

Credit and Technical Assistance for Small-Scale Enterprise

1. The removal of disincentives to agricultural production is a necessary precondition for successful projects intended to stimulate off-farm enterprise.

2. When employment creation is the most important criterion, priority ordinarily should be given to small-to-medium-size industry rather than to microenterprises, to manufacturing industries rather than to service industries, and to service industries rather than to retail industries. However, lending to microenterprises (1-5 persons) can be very productive, under appropriate conditions.

3. As a rule, subsidized credit is inappropriate, suggesting that A.I.D.'s activities are best targeted to those areas or sectors in which credit is needed and in which market rates can be paid but credit is institutionally unavailable.

GLOSSARY

APEC	-	Organization of leading businessmen in the Dominican Republic
ARIES	-	Assistance to Resource Institutions for Enterprise Support
Az	-	Anzoatequi, a vocational school in Guayaquie, Ecuador
A.I.D.	-	Agency for International Development
BHN	-	basic human needs
<u>campesino</u>	-	landless or near landless peasants
DS/ED	-	Development Support Bureau, Office of Education, A.I.D.
GDP	-	gross domestic product
GNP	-	gross national product
IDS	-	Institute for Development Studies, University of Sussex, England
IBRD	-	International Bank for Reconstruction and Development, usually cited as World Bank
ILO	-	International Labour Office, Geneva; also International Labour Organization, the parent enterprise
IMF	-	International Monetary Fund
IRD	-	integrated rural development
LAAD	-	Latin American Agribusiness Development Corporation, a private investment and development company incorporated in Panama with principal offices in Miami, Florida
MINISIS	-	data base management system used by A.I.D.
MTTS	-	Mobile Trade Training Schools, Thailand
OICI	-	Opportunities Industrialization Center International, a private voluntary organization
OPG	-	operating grant

GLOSSARY (cont.)

PDPR	- Office of Policy Development and Program Review of the Bureau for Program and Policy Coordination, A.I.D.
PfP	- Partnership for Productivity, a private voluntary organization
PISCES	- Program for Investment in the Small Capital Enterprise Sector, Bureau for Science and Technology, A.I.D.
PPC	- Bureau for Program and Policy Coordination, A.I.D.
PVO	- private voluntary organization
S&T	- Bureau for Science and Technology, A.I.D.
WFP	- World Food Program

1. UNDERSTANDING THE EMPLOYMENT PROBLEM

This paper reflects a renewed interest (again) in employment, particularly off-farm employment. The paper examines a variety of Agency for International Development (A.I.D.) projects designed to stimulate employment. The purpose is to suggest to practitioners in the field the conditions under which various kinds of projects might be effective. As the question was considered, it became apparent that, assuming sound project design and management, the policy environment was the single most important factor affecting project outcomes. The paper reflects this importance.

This paper begins with a presentation of the conflicting views of the employment problem as seen in development literature today. This discussion is followed by a brief summary of current A.I.D. policy and bureau strategy statements on employment and some current activities in this area. The paper examines five different types of projects that were designed to stimulate the productive use of labor. Each project is reviewed in terms of how effectively it accomplished its goal, the policy context in which the project was implemented, and programming implications to be drawn from this experience. Emphasis here is on the policy environment. Following World Bank studies (see below), we note foreign exchange, factor, and product pricing as key ingredients of macroeconomic policy affecting the outcomes of employment generation projects.

The report concludes with an analysis of the programming implications of this survey of A.I.D. experience with employment generation projects. Appendix A provides a list, derived from A.I.D. practice and development literature, of "appropriate conditions" for the success of employment generation projects in the five areas studied. Also, a list of sectoral price and growth policies, as well as employment and enterprise policies, is provided that suggests the wide range of policy options available to influence output and employment. Appendix B contains brief descriptions of the projects surveyed. Finally, a selected bibliography is included.

Our concern in this report is with individuals who are seeking off-farm employment and who are "ready, willing, and able to work." Definitions aside, we simply accept the apparent fact that large numbers of people clearly are unable to find productive off-farm employment, either full- or part-time.

There are, of course, several kinds of "labor underutilization" in developing countries as indicated in current literature (see Table 1) (Gillis et al. 1983, 186).

Table 1. Types of Labor Underutilization

Type	Unemployment	Underemployment
Visible	Mostly urban, new entrants	Rural labor, seasonal
Invisible	Mostly women ("discouraged workers")	Rural labor plus urban informal sector ("disguised unemployment")

The rough quantitative dimensions of the problem as presented in a popular development text (Todaro 1985, 226) can be seen in Table 2. Unemployment almost tripled during the 1960-1980 period and is expected to increase by one-third by 1990, reaching about 89 million. Most of this will be in Asia, followed by Africa and Latin America. In 1973, the total unemployed rate was about 8 percent, while the underemployed rate was possibly 21 percent. Extrapolation of these figures suggests that today perhaps one-half billion or more people outside of farms are without adequate employment and, as a result, are living in poverty. This is an appalling account. Perhaps the most important segment of the visible unemployed is the youth, lending a potential "volatility" to the data not otherwise apparent. Although this bleak picture is a common way of viewing the problem, there is a different side that must be considered as well.

Peter Gregory, using International Labour Office (ILO) data, concludes that unemployment and underemployment problems are overdrawn (1980). For example, he notes that employment in the primary sector has declined almost universally, while employment in the secondary sector has increased rapidly. In the tertiary sector, thought to be the "unproductive" home of the poorest, employment has also increased, but less rapidly. As Gregory notes, "to the extent that incomes in agriculture lie below those earned in the other sectors, the faster relative growth of the secondary and tertiary sectors would suggest an improvement in the employment and income position of a growing segment of the labor population" (p. 684). Second, employment in the sales and service sector did grow, but not nearly as fast as would be suggested if this sector were indeed the last refuge of workers expelled from other sectors. Third, there is no general evidence

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Table 2. Employment and Unemployment in Developing Countries, Selected Years, 1960-1990

of an "explosive increase in the number of workers forced into unproductive marginal activities." Finally, with development one might expect an increase in measured unemployment, yet unemployment in most low-income countries is in the range of 5-8 percent of the labor force, and there is no notable tendency toward higher unemployment rates (Herrick and Kindleberger 1983, 210-211). Although there are serious problems with the data underlying these conclusions, they do suggest that labor markets are working rather well in developing countries.

Oversimplifying, then, it is possible to state a case both for and against the proposition that unemployment is a severe and increasing problem. The rough outlines of these cases are presented in Boxes 1 and 2.

The employment problem in many developing countries is given a special twist by the need to export, especially in Latin America where the debt/gross national product (GNP) ratio has risen alarmingly. For these countries, the need to export will probably be the most important determinant of the macroeconomic policy framework, as "export or die" becomes the battle cry.

The other special characteristic affecting policy designed to alleviate employment problems in some developing countries is rapid population growth. For these countries, one of the basic ingredients of satisfactory rates of long-term employment may need to be a reduction in the rate of population increase.

In sum, the evidence is mixed, but there is little question that employment is a serious issue facing developing countries. Michael Hopkins (1983, 461-478) has surveyed recent available data and summarized the situation perhaps as well as limitations of the data permit. He states that during the recessionary 1980s, unemployment rose in those developing regions that were most integrated into the world economy, notably in Latin America and the Caribbean and the oil-exporting countries of the Middle East and Nigeria. Unemployment rates in Africa and Asia, however, were hardly affected by the recession of the time.

The change in underemployment during this period was similar in magnitude to that in unemployment, except in Africa. With the exception of the poorest countries in Africa, the proportion of people underemployed fell slightly during the 1974-1982 period, but the total numbers increased from 421 million to 448 million. Thus, even though GNP growth exceeded the population increase, poverty and low-productivity underemployment worsened in absolute terms.

As Hopkins notes, perhaps the extraordinarily weak data on which these broad generalizations are based will stimulate greater efforts on labor force statistics. These data nevertheless do suggest that Gregory's (1980) argument that there is no general

**Box 1. The Case: The Unemployment Problem
Is Severe and Becoming Worse**

1. The essence of the case here is that many observers think that labor underutilization increased in the 1970s because of faster growth in the labor supply, coupled with factors that limited labor absorption. Thus labor underutilization is basically a question of supply and demand.

2. Employment in the industrial sector has been disappointing because it has not provided nearly the number of jobs anticipated.

3. Even "getting prices right" will not substantially increase employment in manufacturing because the elasticity of substitution of labor for capital is not very high in that sector.

4. Income redistribution efforts have had only mixed success.

5. Public works programs may not be of much help because they are difficult to implement and program benefits are unevenly distributed.

6. Attempts to improve job prospects in the city only make things worse because new jobs attract even more job applicants.

7. Employment in the formal sector is demand created whereas employment in the informal sector is supply created. This suggests that an important ingredient of a long-term employment policy is a reduction in the rate of population increase. Yet, such a reduction may be delayed or may not occur at all in the foreseeable future because conditions in developing countries are so different from those prevailing in Europe, where the population "transition" has lowered both the birth and the death rates.

**Box 2. The Case: Unemployment Is Bad, but
It is Not Getting Worse (and labor markets
are alive and well in developing countries)**

1. The urban subsistence sector is working well, reversing the dead-end policy implications of the Todaro model (Todaro 1969, 138-148), in which for every job created there is a multiple increase in job applicants. The Todaro model is related only to people who are qualified for and seek modern sector employment, with growing unemployment appearing to doom attempts to promote urban economic modernization. In contrast, a contemporary view rejects the notion that the market is perverse and suggests that urban migration can be treated as socially undesirable "only if one could show that a significant fraction of migrants produced in the urban setting less than would have been the case had they remained in rural environs. The facts appear to be otherwise, however.... Migration itself improves the overall productivity of the economy and enhances the welfare of both those who migrate to the urban subsistence sector and those who remain in the rural subsistence sector" (Cole and Sanders 1985).

2. Employment in services is growing rapidly and will be an important part of any "solution" to the employment problem because service requirements rise along with the growth in manufacturing.

3. Industrial employment rates compare well with comparable employment rates in the West at earlier stages of development.

4. Population is growing, but there is no need for despair because there is no discernible statistical relationship between birth rates and growth of per capita gross national product (GNP).

5. Because the unemployment problem in developing countries relates in part to agriculture, a development strategy that emphasizes the adoption by farmers of techniques and inputs that are complementary to labor and land will go far toward solving both rural and urban employment problems. Such a development strategy will enable more farmers to remain on the land at higher productivity levels, thus creating markets for off-farm products, providing food for development, and reducing the labor supply in cities. In general, this kind of strategy, advocated for more than a decade by John Mellor (1986) and others, will go a long way toward solving the general problem of underutilization of manpower wherever it is found (see Section 1.3).

**Box 2. The Case: Unemployment Is Bad, but
It is Not Getting Worse (cont.)**

6. People who suggest that there is an employment problem in developing countries use a time frame that is too short, failing to realize that developing countries are going through "awkward first steps," much as those encountered earlier by the now-developed countries. At any rate, because each country is unique, it does not pay either to generalize about employment or to attempt pronouncement of an employment plan or strategy.

evidence of an "explosive increase in the number of workers forced into marginal activities" is somewhat misleading as an acceptable description of current conditions. In most developing countries, the employment problem is serious, and in many developing countries the problem has reached or will soon reach crisis proportions.

Compounding the statistical difficulties in establishing policies to alleviate the employment problem is the lack of a general theory of development that explains the poverty problem or that explains poverty in relation to growth. Instead there are several competing explanations.

1.2 A.I.D. Activities in the Employment Field

One can often discern the priorities of an institution through its budget. However, this is not the case with employment generation projects in A.I.D. There is scant attention devoted directly to the topic in the FY 1987 annual Congressional Presentation. Moreover, as shown in Table 3, formally cited A.I.D. figures show only limited resources allocated for employment generation. For example, in 1985, out of a total of about \$2.5 billion in Development Assistance, only \$682,000 was allocated for employment generation: \$188,000 in El Salvador for public sector employment, \$220,000 (National Development Foundation) in Jamaica, and \$274,000 for a Bureau for Science and Technology project in employment generation (see below for description of activities).

In that same year, out of approximately \$5 billion in Economic Support funding, Jamaica received a cash transfer of \$80.5 million for a project called Production and Employment V. However, the title of the project is quite misleading; it was merely one of many such cash transfers to Jamaica and other Caribbean

Table 3. A.I.D. Funding of Employment Generation Activities, 1979-1987

and Latin American countries. The stated aims of the Jamaica project were to stabilize the Jamaican economy while minimizing the contraction in domestic production and employment, to support structural reforms necessary for broad-based economic growth, and to ease the burden of adjustment for the most vulnerable segments of the population. Ironically, in the Jamaican case, reduction of the fiscal deficit as a share of gross domestic product (GDP) required reduction of Government programs and the dismissal of about 20,000 Government employees. These structural reforms were associated with a declining GDP during 1973-1980 and continued high levels of unemployment and underemployment. It appears that this painful structural adjustment laid the base for stronger economic growth in the mid- to late 1980s. In other words, the Jamaica and similar cash transfers were not programs intended to directly increase employment. This case illustrates the difficulties of using the A.I.D. budgetary data base to analyze program priorities.

For subsequent years (FY 1986 Congressional Presentation and 1987 proposed funding), only about \$300,000 each year in Development Assistance was allocated directly to employment generation (a small fraction of the \$174 million and \$231 million, respectively, proposed for the budget category "selected development activities"), and that amount will be used exclusively by the Bureau for Science and Technology for research and Mission assistance in the employment field. The Economic Support Fund figure for Jamaica's cash transfer will approach \$100 million in FY 1987, an even smaller share of the \$4 billion to \$5 billion appropriation requested for those years for economic support. (All cash transfers carry the potential for increasing employment, but this must be counted as a rather indirect result of the transfer.) Alone, these figures tend to suggest that A.I.D. has a minor interest in employment generation projects.

However, these figures present a greatly misleading picture of overall A.I.D. support to employment generation. No doubt a search of all project logical frameworks for reference to employment goals would yield much larger funding figures than those shown here. Also, as noted in Section 1.3, a search of the A.I.D. data base by descriptors, purpose, and technical codes showed hundreds of projects in which employment generation is given some weight. The interesting point here is that the A.I.D. budget system does not reflect the importance given employment by the Agency as a whole. At the central level, this discrepancy raises the issue of programmatic control over this important category of spending.

In A.I.D.'s listing of "Completed Project Assistance and Activities" (W-253), the categories of assistance are too broad to be useful for economic analysis (e.g., "rural multifunction," or "infrastructure, industry, housing"). Moreover, even within these categories by country, projects are not always listed chronologically by completion date. As a result, it is difficult to derive from the data a clear picture of structure or of historical change.

Despite the misleading appearance of only minor resource allocations, employment in developing countries has long been of concern within A.I.D. In the 1960s, general donor efforts to stimulate employment emphasized projects and various microeconomic aspects of the economy. It is interesting in this respect that a discussion paper produced for A.I.D.'s Bureau for Program and Policy Coordination in 1967 (Dziadek 1967) suggested greater reliance on program loans (using the leverage to negotiate a set of self-help measures), sector loans to help agriculture (declared by A.I.D. as one of its three major initiatives), and on-the-job vocational training (education was another initiative). Other suggestions were the following: more project assistance to rural-based industry, more project assistance to small-scale industry, more loans for local-cost financing, technical assistance for the establish-

ment and maintenance of labor force surveys to provide current data on employment and unemployment, and research on technologies appropriate to developing countries.

Today, concern has shifted strongly and more directly to policy aspects of employment, as evidenced by a study (Haggblade, Liedholm, and Mead 1986) commissioned by the Bureau for Science and Technology in its Employment and Enterprise Policy Analysis project. This study is concerned with policy distortions and their impact, with special attention devoted to differential effects of policy distortions on firms of varying sizes and the resulting effects on the level of employment. The study also examines prior experience of donors and developing country governments with the process of policy change. Its conclusion is as follows:

The magnitude of the effects of policy distortion varies considerably among policy arenas and from country to country. Several general patterns can be identified across [developing countries]. Labor market distortions appear to be relatively minor in most developing countries. In capital markets, on the other hand, the cumulative effects of various policies can lead to substantial and significant distortions in the price of capital. Overall, the policy-induced factor cost distortions were found to be quite sizable, with large non-agricultural enterprises facing wage/capital-rental ratios that are often more than twice those faced by their smaller counterparts. There is also evidence that trade and agricultural policies operating through product markets have substantial differential impacts on enterprises of different sizes (Executive Summary).

The Employment and Enterprise Policy Analysis project is coordinated within the Employment and Enterprise Development Division of the Bureau for Science and Technology, and its goal is "increased employment and productivity through the more intermediate objectives of improved policy and project design."

The immediate objectives of the project are as follows:

- An interregional research effort focusing on common employment problems
- Enhanced topical collaboration and research efficiency (including complementarities and minimal duplication of efforts) on employment questions among A.I.D., international organizations (e.g., the World Bank and ILO), and collaborating U.S. and developing country research institutions
- An effective international employment-oriented research and development network that meets demands by USAID Missions and regional A.I.D. bureaus for improved information concerning employment and productivity in developing countries

Efforts are being made to include USAID Missions and A.I.D. offices in establishing the program's direction and carrying out the research effort.

A 5-year project within the Bureau for Science and Technology, the Program for Investment in the Small Capital Enterprise Sector (PISCES), began in 1978. In Phase I, the PISCES team surveyed and prepared a series of case studies of assistance to small-scale projects in Africa, Asia, and Latin America. The team found many examples of successful projects (Farbman 1981). In Phase II, beginning in 1980, demonstration projects were designed, funded, and implemented in collaboration

with USAID Missions. The program used various assistance modes and a variety of technical assistance methodologies. The evaluation and monitoring systems, in place from the outset of the projects, shed light on such fundamental questions as the impact of these projects and the relationships among specific program inputs and changes in the target population.

In a related effort, the Assistance to Resource Institutions for Enterprise Support (ARIES) project builds on the PISCES and other efforts to stimulate small business. ARIES works with intermediary support organizations that provide services to small and microbusinesses and industry. Life-of-project funding was \$6.8 million, with Mission-funded technical assistance constituting \$3.8 million of that figure. These activities, although not aimed formally and directly at employment, have the potential for increasing employment among small enterprises.

The A.I.D. "strategic plan" was completed almost 2 years after work had begun by the Office of Policy Development and Program Review on a Policy Paper on employment (Buttari 1984 and 1985). Currently, a revised draft of the Policy Paper apparently remains under consideration. In general, the paper advocates a proper policy environment and a limited role for government, emphasizing the long run as the appropriate framework for policy development.

In 1985 A.I.D. published Blueprint for Development: The Strategic Plan of the Agency for International Development, a "strategic plan" for future programming. Blueprint for Development sets forth five problem foci as priorities: (1) inadequate income growth (including unemployment/underemployment and financial instability), (2) hunger, (3) health deficiencies, (4) illiteracy and lack of education, and (5) unmanageable population pressures. Blueprint for Development briefly describes the unemployment problem as follows:

In many Third World countries the level of unemployment is already high. In other countries the problem may be disguised by high rates of underemployment. [Developing country] labor force growth is expected to be rapid, and there is a high likelihood that unemployment and underemployment levels will rise. Lack of productive jobs in rural areas is expected to increase internal migration to the cities, particularly of younger men, and to a lesser extent younger women. Urban unemployment is expected to grow; in some regions the bulk of the increase in the labor force will occur in urban areas. Limited demand for labor will retard integration of women into the development process, and there is a danger of new technologies displacing female workers (p. 25).

Blueprint for Development states that technical assistance, training, and rural credit programs are to be directed at the promotion of rural enterprise in market towns and regional centers, which should retard urban migration. Education (basic literacy and job-related skills training) is viewed as assisting in the expansion of employment (p. 43). But most of all, emphasis is placed on the correct economic policy environments. Developing countries are to be urged to consider, among other things, reducing import tariffs, reducing limitations on foreign capital investment, moving interest rates to clearing levels, and reducing noneconomic business barriers.

Four general lines of criticism can be discerned through a review of documentation within A.I.D. and conversations with A.I.D. officials. First, there is too little concern with employment problems urgently requiring attention today, not merely in the long run. Second, while growth is recognized as tied closely to employment, the various kinds of growth (e.g., with an emphasis on basic

human needs) are not given sufficient analysis. Third, while "getting the prices right" makes sense, the necessary and positive role that must be played by government to make this economic policy successful is largely ignored. Finally, the impending population bulge, which will greatly exacerbate problems of low-income, unproductive employment, and of unemployment, imparts an urgency to the problem of poverty that is not apparent in the paper.

A final activity at the central bureau level may be noted. In October 1985, A.I.D. held a 3-day workshop on employment. Selected papers presented at the workshop will be published in 1986 by the Institute for Contemporary Studies.

Below the central bureau level, increased assistance for off-farm urban employment is being targeted, as evidenced in the regional bureaus' strategy papers for the 1980s.² For example, the Asia Bureau's strategy paper of 1983, written prior to amalgamation of the Bureau with that for the Near East, describes the nonfarm underemployment problem clearly and notes the steps that must be taken to begin to understand and address the employment problem. The Asia Bureau's paper is worth considering in some detail because it represents, at the operational level of the Agency, the problem of coming to grips with program design to enhance employment in developing countries. (It remains to be seen how such planning may evolve as further decentralization of operations gives the Missions more final responsibilities for project planning and approval.)

The Asia Bureau's paper notes that for nearly a decade nonfarm rural enterprise was ignored, with only a few USAID Missions returning to such enterprise development in the late 1970s because of growing unemployment. Recently Missions have been encouraged to develop nonfarm enterprise projects. By 1985, 12 nonfarm projects had been developed with life-of-project costs of approximately \$140 million. This contrasts strongly with the FY 1976-1981 period, when only five nonfarm enterprise projects totaling \$16 million were undertaken.

The content of these contemporary projects is diverse. Project components include provision of credit, training, equipment, feasibility studies, policy analysis, and direct technical assistance to enterprises ranging from bookkeeping and marketing to joint ventures. The approaches also vary widely. Projects are defined by product line (e.g., edible oils), industry (e.g., metal products, food processing), function (e.g., training, finance), scale of enterprise (medium, small, micro), and location (rural, urban). A major objective in the next few years will be to narrow the program through adoption of common themes across the region that will help to focus resources on a few key problem areas through which the Agency can have an impact on nonfarm enterprise development.

Policy reform will of necessity be a main component of the program. The critical internal task will be to find the most effective ways to influence public policy as it affects growth and nonfarm

²It is difficult to generalize from the three regional bureau strategy papers because (1) the papers apparently are not based on a common planning methodology, (2) the theoretical underpinning is stated clearly in one but is virtually absent from the other two, and (3) the amount and quality of quantitative data vary widely among the strategy papers (and the data in the budget categories are largely of fiduciary rather than analytical interest).

enterprise. But, beyond a concentration on policy and an explicit understanding that the program will be working to develop private sector nonfarm enterprise, the Asia Bureau strategy paper states that the approach and content remain to be determined. At present, given the Agency's limited in-house experience and knowledge, the Asia Bureau's strategy paper states that the Bureau is not in a position to make the difficult decision about narrowing the program. In the course of the next few years, through careful monitoring and evaluation of ongoing projects, the Asia Bureau expects to develop a carefully framed strategy.

The Africa Bureau established the African Economic Policy Reform Program in 1985 to improve the policy environment in Sub-Sahara Africa. The program is intended to stimulate USAID Missions "to redirect and expand the policy dialogue component" of A.I.D. programs, to attract other donors' support of policy reform objectives, and to provide A.I.D. "with an important entree with African governments in the policy dialogue process." Two projects illustrate the thrust of this program.

The purpose of the first project in Mali (\$18 million) was to reduce Government involvement in the economy and to provide a conducive environment for increased private sector activity. Government policies encouraged were (1) tax reform and reduction, (2) restructuring of expenditures to begin a reduction in the civil service payroll and to increase the funds available for nonwage expenditures, (3) revision of the commercial code, and (4) relaxation of price controls. Funds have been used as follows: (1) a \$8.335 million cash grant to reimburse the Government for short-term revenue shortfall, (2) a \$8.365 million cash grant to help the Government increase its share of expenditures on nonpersonnel costs, and (3) \$1.3 million for technical and commodity assistance to aid in the computerization of budget and tax collection systems.

The purpose of the second project in Malawi (\$15 million) was to rationalize fertilizer policy in order to promote agricultural diversification. Policies encouraged were (1) reduction of fertilizer subsidies and (2) a shift from low-nutrient, high-cost fertilizers to high-nutrient, low-cost fertilizers. Funds have been used as follows: (1) a \$13.1 million cash grant to be used to maintain the integrity of two credit funds associated with the purchase of fertilizer and (2) \$1.9 million for technical assistance for studies and assistance in budgeting and agricultural marketing, including storage, divestiture of parastatals, and policy with respect to strategic grain reserves.

The African Economic Policy Reform Program is recognized as a high-risk, high-impact program. The program's designers also note that such programs "require highly talented analytic staff in their design, but even more importantly, in their implementation. The ability of small Missions to monitor and implement these programs remains weak." In part this weakness results from the fact that while four of the first five projects were cash grants, they "turned out to be more complicated than first expected because they have been designed in such a way as to put great emphasis on reducing the political costs associated with any change. This has led A.I.D. to associate its program funds with technical assistance and to target the use of its nonproject assistance resources carefully."

These African programs represent a new and vigorous thrust toward policy reform that can only benefit employment in developing countries in the long run, either directly through off-farm employment, or indirectly by stimulating greater productivity in agriculture, with all of the positive spillover effects that will ensue throughout the economy.

Another important A.I.D. employment generation activity involves the study of women's role in employment and income generation. This study is being coordinated by A.I.D.'s Office of Women in Development. The A.I.D. Policy Paper Women in Development (1982) notes that women form a very large and frequently the majority share of workers in the informal sector and that "A.I.D. must encourage attempts to break the pattern of women's relegation to low-productivity occupations with no growth potential." The Policy Paper suggests that "A.I.D. can accomplish this by designing into projects the expansion of employment opportunities in sectors where women have not traditionally worked, and in those relatively new sectors of the economy where gender-specific work roles are not yet entrenched." The Policy Paper further notes that "a variety of programs for small entrepreneurs and micro-enterprises have been successful, and A.I.D. can adapt them for women."

A recent study (Carloni 1987) draws on A.I.D. experience to derive lessons to guide policy and project design in integrating women into A.I.D. projects. For example, 13 projects were examined that aimed at generating employment by providing job training, credit, or promotion of community-based income-generating activities. Of the three projects in job training, the study found that only one was successful in expanding employment for women. The other two failed because the training was of little value in enabling women to get a job or because little effort was made to recruit women for the project.

The study concludes that it is much easier to successfully train women than it is to generate employment for them and that projects that provide credit for setting up or expanding businesses are much more successful than those in which training alone is provided. In the credit area, the study states that credit in very small amounts must be available if women are to be helped. Of several projects involving income-generating activities for women, only one was successful, largely because of superior analysis in project design of women's existing income sources, women's incentives to undertake new activities, and their time constraints.

A 1986 initiative within the Bureau for Private Enterprise provides resources to Missions (largely excepting the Africa Bureau, which has a parallel fund of its own) to assist regional bureaus and Missions to integrate the Private Enterprise Initiative into A.I.D. programming and to improve developing countries' understanding of the potential role of the private sector in promoting economic development. This is yet another Agency thrust toward policy reform intended to enhance private sector development, as well as to provide specific services relating to programming.

1.3 Method of Approach

The A.I.D. experience recounted above suggests an ambivalence toward employment generation efforts. The proposed A.I.D. Policy Paper, for example, emphasizes policy reform. From this perspective, the central development problem is low productivity and the associated low incomes that result from the absence of inputs complementary to labor due to inappropriate macroeconomic policies. In this context, projects can be seen as rather piecemeal efforts that are of only incidental and temporary help. The fundamental solution then becomes essentially that of "getting the prices right," establishing an institutional setting supportive of private initiative and awaiting the "rising tide" that will eventually lift incomes for all.

Bureau plans, of course, note the necessity of policy reform but are filled nevertheless with proposed projects. For the purpose of this study, both policy and projects are examined to determine the appropriateness of A.I.D.'s employment generation projects in the various policy settings.

As previously mentioned, however, data limitations constrained a systematic examination of A.I.D. activities in employment generation. First, as mentioned above, budgetary data do not reveal the true extent of funding in this area. Second, a search of the A.I.D. data base (MINISIS) by descriptors, purpose, and technical codes yields an almost bewildering array of projects whose descriptions refer to employment generation in some form. Thus, the entire range of projects had to be examined individually on the basis of the project descriptions available in MINISIS. After selecting the projects to be reviewed for this study, it became apparent that evaluations for the selected projects were very limited. In some cases there were Mission evaluations and formal end-of-project evaluations. In other cases, no evaluations were available in Washington, or none that could be found in the evaluation offices or the A.I.D. Library.

Thus this report is extremely limited by a sparsity of data concerning project success or failure. A.I.D. practitioners offered a variety of reasons for this problem, the most common of which was the decentralized nature of operations. For example, they pointed out that an evaluation carried out by a Mission might not reach Washington, and even if it did, it might not reach A.I.D.'s central data base. The question raised then is how project evaluations can be used to guide future project design when the evaluations themselves are not available centrally. To the extent that projects are designed in the field (decentralization), however, this becomes less of a problem.

A final note on the scope of this paper. Although we restrict discussion largely to the domain defined by the descriptors concerning off-farm employment contained in A.I.D.'s project information retrieval system, it is still necessary to place such projects in a broader context. For example, considerable evidence shows that agriculture, which is central in A.I.D.'s programming, is also a primary determinant of the demand for the output of small enterprises through the linkages between agriculture and the small firms supplying agriculture with inputs, markets for its outputs, and consumer goods for its workers. The impact on small enterprises appears to be greater when resources are focused on smaller rather than on larger farms because the linkage demands from large farms appear to be more capital intensive. Furthermore, concentrating on the large number of people unable to find productive off-farm employment should not obscure the fact that many of them would not be seeking off-farm employment if they had attractive on-farm employment.

2. THE POLICY SETTING

In stressing the policy questions related to employment, this paper in effect addresses two questions: (1) why do labor markets not provide sufficient productive employment even in the context of a growing economy (the micro question), and (2) what infirmities of macroeconomic policy prevent increased employment? In short, we ask what is it in the environment that inhibits employment growth and that requires A.I.D. to become involved?

Generally speaking, the supply of labor flows from population change, and the quality of that labor is directly related to investment in human capital. Also, labor supply is affected by attitudes toward working, education, income of the primary worker, and the status of women, among other

things. Some of these factors will be influenced by such long-range A.I.D. projects as those in population and policy reform. The demand for labor is derived from the demand for products produced by labor, which in turn rests on consumer incomes and preferences. The demand thus relates to the price of labor as a factor of production relative to the prices of other factors, and to the rate at which incomes are growing in general.

It is widely recognized that rapid population growth is part of the labor absorption problem in some countries. This suggests the need for a population policy designed to reduce birth rates. Other things aside, such an event would reduce unemployment and underemployment and (probably) raise wages relative to other factor incomes. Population policy, however, is not a direct concern here. This review of the demand for labor focuses on market conditions in a policy context. That is, each set of projects (e.g., vocational education or credit) is examined to determine how the project affected specific features of the demand for labor in specific markets. Although supply and demand analysis can signal the proximate causes of labor demand, the more fundamental questions relate to national policies that in turn affect supply and demand.

At its simplest level, one may argue that four variables largely determine the demand for labor. These are as follows:

1. The level of money incomes of workers. Money cost of production is a function of wages and productivity. Private employers do not, except by accident, pay workers more than they are "worth" in terms of production. Policies that raise wages relative to productivity tend to reduce employment.

2. Productivity. High productivity can overcome not only high wages but overvalued exchange rates as they affect employment. The choice is not between employment and productivity, in this narrow sense, but rather between employment now and employment later. However, in a dynamic setting, high productivity increases incomes that set the stage for increased demand and rising employment. Moreover, there need not be a choice at all in the macroeconomic sense if the development strategy followed provides for wider distribution of productive assets (chiefly land and capital) in the short run.

3. Capital costs: interest rates and the exchange rate. Overvalued exchange rates make capital imports cheaper. When this policy is coupled with a low interest rate policy, there is strong impetus to substitute capital for labor where possible. At the same time, overvalued exchange rates in a strategy of import substitution both raise the cost of many inputs, including labor in some cases, and discourage exports and encourage imports, thus effectively reducing overall demand for labor. If devaluation is accompanied by internal price increases matching the devaluation, rising money incomes (to match increasing costs of living) will wipe out any improvement in employment that otherwise might have been possible.

4. Trade policy. Barring a decision to forego the potential benefits of international trade (e.g., self-reliance, autarky), rising absolute levels of imports require an export-oriented policy. Quality aside, the single major factor determining export competitiveness is price, which derives from the combination of money income, productivity, and exchange rate.

In sum, as the primers teach, it is essential for short-term allocative efficiency that price be equated with social cost (items 1 and 3 above). Short-term growth (hence employment) will be

maximized. To maximize long-term growth or dynamic efficiency (hence employment levels), public policy must stimulate rising productivity levels and tap effectively the gains to be had in the (dynamic) international division of labor (items 2 and 4 above).

It is recognized that this is a truncated version of more complex market models, but it has the advantage of highlighting the concerns that affect levels of employment, especially in the export-oriented environment facing most developing countries today. There is, of course, much more to export marketing than money incomes, productivity, and exchange rates, as the Japanese and Koreans have demonstrated so well. Moreover, there are market imperfections in real life suggesting that government will "abridge" the free functioning of such markets (externalities, monopoly). Also, there are mixed economies in which government may play a major or even dominant role in resource allocation. In these real-life, "second-best" economies all allocative decisions become economically ambiguous. Finally, government will sometimes act to change the income distribution generated by the market. All of this notwithstanding, each nation must make decisions one way or another on the four variables cited above. These decisions, in turn, affect levels of income and employment.

The approach taken in this evaluation study is based on the aggregate production function. This approach differs from that taken in most A.I.D. evaluations, which follow the logical framework approach in which each project is examined in terms of inputs, outputs, purpose, and goal. The aggregate production function approach has the advantage of viewing the project from a broader macroeconomic perspective that includes consideration of macroeconomic variables including interest rates, wages, and economic policies. A potential disadvantage of this approach is that it requires an understanding of the nature and characteristics of an aggregate production function. The following paragraphs set forth the main characteristics of this approach and briefly examine its merits both for evaluation and for future project design.

Briefly, a production function is the relationship between inputs and outputs for a firm or for a nation. The inputs are capital and labor; achieving more output requires more capital or labor, or both. One possible relationship between these inputs and total output is the aggregate production function. That is, through varying combinations of capital and labor, production can be increased. A 1-percent increase in each input may increase output by 1 percent, on the assumption that there are constant returns to scale (i.e., that the inputs are used no less efficiently as their utilization increases). In some cases increased inputs can lead to their declining productivity. For example, if capital is constant but labor increases, labor productivity may decline, and vice versa. Such decline can be more than balanced, however, by technological change that improves productivity. In sum, in this view, there is a close relationship between growth of total production and the roles of capital, labor, and technology.

The demand for labor is ultimately derived from the demand for final production. To produce more output, more workers will be required unless technology increases the productivity of existing workers. Decisions on the quantity of labor to be hired hinge therefore on the productivity of workers (which in turn rests on workers' skills, health, and attitudes) and the price of labor relative to the price of capital.

In some cases there are limited possibilities of substituting capital for labor (where a production process requires labor and capital in some fixed proportion), but throughout an economy there is usually a wide range of activities in which more capital can be used relative to labor or more labor can be substituted for capital. The degree to which one is substituted for the other depends on wage and interest rates and the marginal productivities of labor and capital. Interest rates that are low relative to

capital productivity will induce greater use of capital. Conversely, wage rates that are high relative to labor productivity will induce less use of labor. At any given rate of growth, therefore, less labor and more capital will be used.

This is the fundamental importance of economic policy in employment generation. Policies that elevate wages and reduce interest rates tend to reduce employment. The use of this production function approach for A.I.D. programming clarifies several issues.

1. The issue is not whether a given project was successful in generating employment but rather whether the project was appropriate. Barring unusual implementation difficulties or extraordinary external shock, almost any project can increase employment to some extent. However, in a hostile policy environment (high wages, low interest rates) the question must be asked: was the economic payoff sufficient to justify the project? In poor policy environments, the payoff will always be reduced.

2. Economic policy therefore is the major component of programs intended to increase employment, whether in the formal or informal sector. Although employment in the informal sector is often self-employment, the growth in demand on which such employment rests will be stronger in a favorable policy environment, thus reflecting stronger overall growth in the economy.

3. Differences in policy environment explain why some successful employment generation projects cannot be replicated elsewhere or expanded into national employment programs.

4. An employment program without complementary policies that promote equity as well as growth is almost bound to fail. Although some welfare programs (food, emergency medical assistance) can directly help some of the poor, history suggests that a more enduring and widespread measure that can be taken to broaden equity is increased employment. Employment is the major link between growth and equity, and in the long run policies that encourage substitution of capital for labor both reduce growth and worsen employment and hence equity.

The aggregate production function approach has three further advantages that, however, are not explored in the present study because of data limitations. The aggregate approach highlights the crucial relationship between technology and employment. If appropriate prices are indeed the prerequisite for increased employment, wider possibilities for the substitution of labor for capital are to be found in suitable technology. This is why what has come to be called "appropriate technology" is so crucial. It widens the technical possibilities of substituting labor for capital when the prices are right.

Another advantage of this approach is that it signals the importance of backward and forward linkages that will, in part, rest on the technological choices available to producers. The positive effects of a successful employment generation project will be multiplied when there are strong linkages to suppliers and to those enterprises depending on a firm's output. High rates of growth tend to strengthen linkages and thus to increase the spread effects of a successful employment project. High rates of growth tend to be associated chiefly with a supportive policy environment.

Finally, it is important to note that while the production function has been used as an evaluative device here, it can also be used as a planning device in the design of subsequent employment generation projects. Preliminary examination of the policy context, level of technology, backward and

forward linkages, substitutability of labor for capital, and the level of wages and interest rates would give an indication of the probability of success or failure of a planned employment generation project.

Table 4 presents a wide variety of indicators of the major policy and economic environments in the countries in our sample. Although the table is based on data that are sometimes sketchy or of dubious worth, the table does suggest that the current emphasis on "policy reform" in developing countries by donors and, increasingly, by the countries themselves is appropriate. For example, in the 1970s and early 1980s, Honduras experienced low growth rates and high rates of population increase while wages increased and industrial productivity declined. The exchange rate was overvalued, and manufacturing was highly protected. Capital was moderately underpriced, and labor was highly overpriced. Bangladesh greatly underpriced capital and greatly overpriced labor and suffered high rates of inflation. Ghana had negative growth, increasing wages, and declining industrial productivity and suffered from high distortions in exchange rates, protective tariffs, and disincentives in agriculture.

These were extreme cases. At the same time many of the countries with A.I.D. projects had distortions that might be termed of medium intensity. Given the other harsh conditions affecting growth, these distortions were often the deciding line between progress and regression. Most of A.I.D.'s projects were in countries of medium distortion.

Ramgopal Agarwala in his 1983 study of price distortions and growth in 31 developing countries throughout the 1970s, found that countries with low economic distortions generally grew faster (and in many cases more equitably) than countries plagued with market intervention. With real GDP growth as the dependent variable, Agarwala classified seven economic variables based on empirical and subjective investigation of whether distortion was

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Table 4. Economic Conditions and Price Distortions in Countries With Sampled Projects, 1970s and Early 1980s

Table 4

above or below some prespecified medium range. The independent variables included the following: (1) exchange rate distortions; (2) protection of manufacturing; (3) distortions in agricultural pricing, including both protection and taxation; (4) distortions in the pricing of capital; (5) distortions in the price of labor; (6) infrastructure pricing distortions; and (7) inflation.

Overall, high price distortions were apparent in 80 percent of the countries characterized by a decade of relatively low growth. Of all high-growth countries, high price distortions were found in only 1 of the 31 countries examined (Nigeria). Conversely, 60 percent of countries with low price distortion experienced above-average growth rates, and no country with low price distortion was classified as experiencing low growth.

Why have policy distortions come to characterize so many developing countries? One reason was the widespread adoption 30 years ago of import-substitution policies to stimulate industrialization. Under such policies capital was often underpriced through low interest rates, and exchange rates were overvalued to encourage importation of items needed for industrialization. The corollary was the attempted exploitation of the agriculture sector by paying below-market prices to farmers. The result was the emergence of high-cost industrial enterprises and a weak agriculture sector.

Once a country was locked into such a strategy, other policies followed naturally. In the face of food shortages, consumption of food was subsidized. In other settings, although food might not have been in short supply, attempts were made to convince urban workers that the policies were in their long-run interest, and wages were often fixed (through minimum wage laws or union pressure) at levels that were above those that might be expected in countries with large and rapidly growing labor supplies.

This brief sketch, of course, does not do justice to the complexity of economic, political, and social pressures that resulted in policy distortions. Also, it must be acknowledged that many developing countries at the time acted on what was considered to be "sound advice" from a variety of external sources.

3. REVIEW OF FIVE TYPES OF EMPLOYMENT GENERATION ACTIVITIES

This section reviews A.I.D. experience in five areas: vocational education, infrastructure, food for work, export promotion, and small-scale enterprise. The implications of this review are discussed at the end of the section, but the reader is reminded of the framework of analysis that guides the discussion. Specifically, this paper is concerned with micro-level questions of supply and demand for labor and with the macro level at which policy effects are generated, which frequently are more important than micro effects in determining employment.

3.1 Vocational Education²

3.1.1 Review of the Projects

A.I.D.'s experience in vocational education has been broad, ranging from extension work for upgrading agricultural skills, to technical training for bureaucrats involved in education planning.³ Most of A.I.D.'s work in vocational education has been carried out in Africa and Latin America. Although A.I.D. tends to work through public entities, the six sample projects reviewed here primarily involved some private intermediate institution through which A.I.D. disbursed funds.

Beneficiaries of these projects were typically low-income, primary school graduates who were unemployed--a generally appropriate target group according to UNESCO'S recommendations on technical and vocational education (which adds girls and women to the target list) (UNESCO 1972 and 1974). Course length ranged from 2 months (participants complained that this was too short) to 3 years for vocational high schools. The distribution of course offerings is shown in Table 5. In the sampled projects, training opportunities for men and women were fairly balanced. All of the urban programs offered some literacy training. Although the Thailand Mobile Trade Training Schools (MTTS) did not offer literacy training, other programs available in that country's rural sector did offer such training.

The most important test of success in this analysis is, of course, the achievement of formal or informal productive employment. An employment project can be judged successful if it leads both to short-term and long-term employment. Vocational

²A recently completed study by Herschbach (1985) complements many of our suggestions. Prepared for the Office of Education of the Bureau for Science and Technology, the paper emphasizes the wide "range of vocational training alternatives that must be explored in order to adequately address training and employment issues."

³For the best summary to date of A.I.D. activities and possible directions for the future, see Claffey (1982). For a broader view of nonformal education see a study done by Krueger and Moulton (1981) for the Bureau for Development Support (now the Bureau for Science and Technology), Office of Education.

Table 5. Course Offerings in Sampled Vocational Education Projects

education projects are unusual in that output is expected to be long term. Linkages derive primarily from the simple multiplier effect of employment income, and unless a vocational education program is very large, ripple employment effects are insignificant. All of the projects examined allegedly led to entry-level employment, indicating a positive net employment effect.

Table 6 presents comparative data on several important characteristics of these programs. First, there is a relatively high success rate for participants who complete the programs. Second, men have a higher success rate in gaining employment than do women. Finally, with the exception of Thailand, the projects are small.

Dropout rates in developing country educational systems are notoriously high, and the rates in these projects were no exception. Four of the projects had dropout rates that ranged from 34 to 47 percent, and two had dropout rates that were less than 10 percent. These figures bear directly on the cost-effectiveness of the schools. However, there is no systematic way to compare project costs because cost information is presented differently in each case. For what they are worth, estimates (in U.S. dollars of the relevant years) of student costs are presented below.

1. Operating cost for the Nigeria Opportunities Industrialization Center International (OICI) project was \$600 per student. We estimate that the costs were \$1,700 per graduate.
2. For the Ecuador Boys Working Center project, total costs (including prevocational training) were \$1,250 per student, but cost per graduate was \$4,375.
3. Salary costs alone for the Ecuador Anzoatequi project were \$500 per student. To approximate a useful total cost figure, we added total costs of general maintenance to teachers' salaries and divided by the number of graduates. The resulting total cost per student was \$1,118.
4. In the Dominican Republic project, the total cost per student was \$5,660.
5. Operating cost for Thailand's MTTS project was \$67 per student and \$90 per graduate.

One is tempted in reviewing these figures to suggest that costs per student in formal programs were higher than in nonformal programs for the same output, namely, skilled employment. Speculation on why the relatively low dropout rates in the Nigeria and Dominican Republic projects were associated with such widely different costs per students, however, is meaningless

Table 6. Operating Characteristics of Sampled Vocational Education Projects

because no common methodology was used in the evaluations in establishing costs or outcomes. Without a common methodology, no comparative cost statement is valid. This absence of a systematic analysis that would permit derivation of comparative costs per trainee/graduate was noted in a 1982 study on A.I.D. activities in vocational and technical education (Claffey 1982). (This and other findings of this study, which are largely compatible with the findings of the present review, are presented in Appendix A.) A World Bank study (Metcalf 1985) notes these difficulties and suggests a variety of ways to approach evaluation of vocational education.⁴

3.1.2 The Policy Context

What conditions required A.I.D.'s involvement in vocational education, and what was the subsequent effect of these conditions on the projects' outcomes? From a labor supply perspective, no project had difficulty attracting applicants; most schools had waiting lists. Clearly, there was a perceived need from a beneficiary standpoint. From an economic perspective, vocational education is similar to any other good: at lower prices, more will be demanded. This explains student demand for the courses.

The demand for labor, however, is an altogether different matter. Training in the short run neither changes the number of job opportunities nor increases the attractiveness of labor-intensive technologies if other biases are in place. From a theoretical perspective, demand is related to structural balances and to growth. Structural imbalances exist when workers do not fit jobs, jobs do not fit workers, or when ignorance or discrimination prevent supply from meeting demand. Structural unemployment appears to decrease as information increases with technology and economic integration.

Growing economies offer the most fertile ground for vocational education projects. In terms of cost-effectiveness, a formal vocational education project, with its high overhead costs, would be justifiable only within the context of a burgeoning economy. In our sample, four of the countries were growing economically and two had very high policy distortions affecting general employment generation (micro conditions), as can be seen from the following summary:

⁴The importance of good cost data is stressed in an article that uses "the dominant engineering-type methodology of assessing training priorities in developing countries" and proposes "alternatives based on economic considerations such as the unit cost of training and the performance of recent graduates in the labor market. The data needs for the economic assessment of training priorities are enumerated, with emphasis on tracer studies of school-leavers for generating a variety of labor market signals." (From the abstract of George Psacharopoulos 1984).

Country	GDP	Extent of Policy Distortion
Ecuador	Growing	Medium
Dominican Republic	Growing	Medium
Ghana	Stagnant	High
Nigeria	Growing	High
Thailand	Growing	Low

In this context, Thailand's MTTTS program stands out as a relative success. It was low in cost and large by A.I.D. standards and contributed significantly to the creation of a more comprehensive nonformal education system in Thailand: the Lifelong Education Centers. The apparently low employment-to-graduate ratio (see Table 6) is explained by the fact that many students learned enough to secure a job after completing only part of the program. The project was set in a growing economy with low policy distortions. It should be noted, of course, that no direct causality can be established between these conditions and the project's relative success because other variables may have intervened. Nevertheless, there can be no doubt that growth and low policy distortions (which are related) were strong enabling conditions for project success.

It is curious that A.I.D. vocational education projects are often established on the basis of an assumed demand for labor (macro conditions). Consider, for example, that the OICI project in Nigeria was undertaken at the same time that the then-current Nigerian national economic plan stated that trade centers and vocational schools seemed to be losing their validity because employers prefer on-the-job training or apprenticeships. The conclusion was that further expansion in this area would have to be contained.

Nigeria and Ghana had certification requirements and grade classifications for virtually every field that was taught at the OICI centers. Fixed salaries for specific employment grade classifications coupled with written examinations for employment inhibit both the supply of and the demand for labor. The macro- and microeconomic evidence surrounding the OICI projects in Ghana and Nigeria suggests that they were operating in an employment environment that actually reduced employment. Project documentation for the projects in Ecuador and Thailand shows no evidence that these projects were constrained by micro conditions. In Ecuador, however, medium-level policy distortions probably did adversely affect the project.

No project was designed so poorly that it could not function, but the design of the Dominican Republic APEC project, in particular, clearly had an adverse effect on project outcome. An initial manpower survey (apparently the only one completed of the projects reviewed here) revealed an inadequate demand in the formal sector for female labor. Although the project design was subsequently modified to encompass entrepreneurial and management training for women, these added components were never made part of the actual project. An evaluation concluded that it was almost impossible for the project to accomplish its goal of improving the socioeconomic condition of poor urban women simply by enhancing their income-earning capacities. A small number of women did gain

employment after receiving training in such areas as street vending, domestic help, public employment, beauty salon work, and handicraft production. Except for the public positions, all jobs were in the informal sector. The APEC project, which had the lowest ratio of students graduated to students placed, therefore, was clearly adversely affected by project design.

It may be noted that in principle, a high dropout rate can occur in a training project because even a small amount of training prepares students for jobs that urgently need to be filled. This possibility is not discussed in the project evaluations that were surveyed, except in the Thailand project evaluation.

Project design also adversely affected the outcome for the Anzoatequi project in Ecuador. According to the project evaluation, "had the area been stagnating the school probably would have failed; given the growing local economy, it barely met its objectives." In short, labor demand was poorly accounted for in project design. The Ecuador Boys Working Center project was also criticized in the evaluation because the school's rules were so stringent that many families were expelled. The school itself, according to the evaluation, did not seem disturbed by the low level of output.

A poor policy environment will limit the success even of well designed projects. In the OICI projects in Nigeria and Ghana, business contact was institutionalized, and efforts were made to ensure that each student was placed where he or she was comfortable. Behavior modification classes were part of the instruction (also true of the Ecuador Boys Working Center), which also encouraged family participation, and alumni contact was used to motivate current students. Although the OICI projects were carefully designed and well executed, they could not be major successes because they operated in an environment inhibiting employment creation. The Thailand MTTS project also seems to have been well designed and executed, benefiting greatly from the combination of a low policy-distortion environment and its nonformal nature. Conversely, the Anzoatequi School, which was poorly run, was a relative success because it operated in a growing economy.

3.1.3 Programming Implications

1. A.I.D. has often ignored labor demand in vocational education programs until the project has been in place or has definitely been decided on. This is puzzling because it seems to suggest that the projects are instituted on the basis of an undetermined priority for employment generation. In designing educational programs, labor demand appropriately will be the first factor to be considered. Unless there is a clear demand for labor, indicated by both a growing economy and low price distortions (which usually are found together), a vocational education project probably will not be cost-effective. In short, A.I.D. experience generally suggests that the single most important factor in the negative assessment of vocational education projects has been the absence of a clear linkage between the project and employment opportunities.

2. Design is important in the success of a project, but secondary to the policy setting at the macro and micro levels. Highly adverse policy suggests that training programs will yield low returns. Job creation through increased productivity is at the heart of economic development, and the policy setting must stimulate productivity increases, the absorption of more productive labor into productive employment, and the relatively wide sharing of productivity gains among all income levels.

3. A strong case can be made against formal vocational schooling as opposed to informal because of the external inefficiencies (weak relationship to employers) and internal inefficiencies (weak staff, outmoded equipment and curriculum, higher cost per student) of formal systems.

4. Because of a high demand for training and a high dropout rate, it may be more efficient for schools to engage in selective recruitment.

5. Placement assistance is a necessary component of training programs only when the economy is not growing.

6. Women sometimes are not taught the skills they need to become employable. They are more likely to be taught traditional skills for which, even in a growing economy, demand is limited.

7. Low-budget schools are forced to be more efficient and versatile, and, on average, their students do not seem to receive worse training.

8. School enterprises can function both as revenue-generators and on-the-job training exercises for students.

3.2 Labor-Intensive Infrastructure

A.I.D.'s experience with labor-intensive infrastructure is extensive; however, employment creation as a project component curiously has not been emphasized in official documentation. Employment generation cited as a logical framework goal in project evaluations usually concerned on-farm employment increases facilitated by construction of rural infrastructure. Analyses of labor-intensive components usually centered on technical appropriateness as it affected project implementation. This focus implies a desire on A.I.D.'s part to create useful (usually rural) infrastructure. However, this relative disregard for the employment component naturally arising from labor-intensive methods implies missed opportunities and uncalculated benefits.

3.2.1 Review of the Projects

For the analysis of labor-intensive projects, five projects were reviewed: three in Latin America (Jamaica Feeder Roads project, Jamaica Integrated Regional Rural Development project, East Caribbean Basic Human Needs project), one in Africa (Kenya-Vihiga Rural Development project), and one in Asia (Indonesia Rural Works project). Other labor-intensive infrastructure projects did not provide enough concrete employment information to warrant inclusion. No project in the sample was make-work, although the Jamaica Feeder Roads project was overtly politically motivated, and the East Caribbean Basic Human Needs project stressed employment for relief. The goals and outputs of the five projects were as follows:

- Kenya-Vihiga Rural Development. A comprehensive program that included credit, technical assistance, infrastructure, and training to promote rural development and reduce rural-to-urban migration. This study is concerned solely with the roads component.

- Indonesia Rural Works. To promote agricultural development and rural growth through infrastructure such as roads, irrigation, and small bridges while providing employment opportunities for the needy.
- Jamaica Feeder Roads. To improve existing roads throughout the country, thereby helping to increase agricultural production and social services and to decrease rural-to-urban migration.
- Jamaica Integrated Regional Rural Development. To reduce unemployment and revitalize the agricultural sector through a comprehensive program of infrastructure and extension. This study is concerned only with the labor-intensive infrastructure component.
- East Caribbean Basic Human Needs. To reduce unemployment and create visible public improvements in nine island economies while creating needed infrastructure in areas such as schools, roads, water works, and reforestation essential for growth.

Infrastructure is an investment good. Only through returns to the investment do employment opportunities extend beyond a project. Infrastructure projects are popular employment generators because they usually increase the demand for unskilled labor in the short run while the effects of longer sustained development efforts take hold, or, if the infrastructure project is directly productive, until it begins to generate growth. Furthermore, infrastructure projects can be implemented relatively rapidly, have a highly visible impact, and are very flexible in terms of location and structure.⁵

However, infrastructure projects are very difficult to design and implement so that productive benefits can accrue, in employment or otherwise. Extensive complementary inputs are sometimes needed. Infrastructure projects tend to be management intensive. A failed project can have disastrous consequences, the least of which is a loss of the financial resources used directly in the project. (In the Jamaica Feeder Roads project, which had very few productive benefits, per capita cost to pay back the loan was estimated at \$4.50 plus \$5.00 interest, or 317 times the initial U.S. outlay per capita).

In their study of rural employment creation, Hook and Thomas (1977) provide a summary table outlining the characteristics of employment projects based on the productive intent of the project

⁵For a discussion along these lines, from which this paper draws freely, see Richard M. Hook and John W. Thomas, Creating Rural Employment: A Manual for Organizing Rural Works Programs, 1977.

(Table 7).⁶ Table 7 provides easy identification of the strengths and weaknesses of various projects classified as directly productive, economic infrastructure, or social infrastructure.

In the sample projects, A.I.D.'s efforts have been concentrated in economic infrastructure, as follows:

Directly Productive	Economic Infrastructure	Social Infrastructure
Indonesia Rural Works	Jamaica Integrated Rural Development Jamaica Feeder Roads East Caribbean Basic Human Needs Kenya-Vihiga Rural Development	East Caribbean Basic Human Needs Jamaica Integrated Rural Development (housing component)

The following are important characteristics of the five projects reviewed.

- The Indonesia Rural Works and East Caribbean Basic Human Needs projects received further funding, and both follow-on projects were designed to concentrate on more directly productive projects.
- The five projects are generally income-augmenting projects designed to relieve seasonal unemployment and to create needed assets in the primary (and occasionally secondary) sector.

⁶The World Bank provides a useful classification system for infrastructure projects (Hook and Thomas 1977), as follows:

Classification by objective

Relief programs designed to alleviate emergency situations
Long-term employment programs designed to stimulate employment
of the structurally unemployed
Low-cost infrastructure programs designed for asset creation
and which often pay relatively low wages

Classification by productive intent of project

Directly productive projects such as irrigation and land
clearing
Economic infrastructure projects such as roads
Social infrastructure projects such as schools and clinics

Table 7. Characteristics of Labor-Intensive Infrastructure Projects

- A.I.D. has generally stressed new asset creation over repair of existing structures (Jamaica Feeder Roads is an exception).
- The administrative execution of projects has generally been at the national ministerial level (Indonesia Rural Works is an exception). Only the integrated development projects were located at a central level above the operational ministries.
- Women have typically not been the target beneficiaries for these projects. Women were involved in the Indonesia Rural Works project, and to a small extent in the Jamaica Feeder Roads and East Caribbean Basic Human Needs projects in subsidiary roles only.

The short-run employment effects of projects will be greatest where (1) project workers were formerly unemployed and (2) where positions vacated by project workers (if formerly employed) are subsequently filled by the unemployed. Generally speaking, when wages exceed local norms it is more likely that employed workers will be drawn to the project, thus creating potential scarcity for certain types of labor. If a rural infrastructure project draws labor from the agriculture sector, production may be adversely affected, depending on production conditions in agriculture and the demand for agricultural projects if the farms are partially commercial. Table 8 presents important features of these projects that bear directly on their employment creating effects.

Local procurement of supplies for the project implies short-run employment creation. No project evaluation mentioned possible employment effects from this backward linkage. Table 8 shows that wages were generally lower than local norms. Below-average wages were usually used to discourage the relatively better off from competing with target beneficiaries for the available employment or to prevent a labor shortage from occurring in other productive activities. In the Jamaica Integrated Rural Development project, where wages were higher than average, the project evaluation indicated that the project drew necessary labor away from the primary sector. Project documentation did not indicate that project labor was difficult to obtain where wages were below average.

The percentage of project funds spent on labor is often used as a rough guideline for determining the overall labor-intensity of the project. Hook and Thomas (1977) suggest that even for the most labor-intensive famine relief projects, the portion of project funds expended for labor will not surpass 75 percent. Income-augmenting programs producing assets of acceptable quality should yield a figure of 55-65 percent. Hook and Thomas suggest that if the figure is less than 50 percent, "important questions

Table 8. Characteristics of Sampled Labor-Intensive Infrastructure Projects

are raised as to the seriousness of the employment generation goal and the appropriateness of the technology that is being used." Only the Jamaica Feeder Roads project falls below this criterion. According to the project evaluation, "consideration was never given to the types of methods or designs whereby labor could be utilized for the major items of work that conventionally were performed by equipment. Rather, a program was planned and implemented that was capital intensive but yet allowed for employment of labor to perform many of the incidentals and minor items of work." All other projects fall roughly into the range of adequate labor intensity.

Estimated number of workdays per project cannot be compared because the projects correspond neither in size nor in length. However, cost per worker-day can give some indication of comparative cost-effectiveness. Hook and Thomas suggested in 1977 that "where costs are below \$0.75 per worker-day, it must be assumed that workers are being paid at wages substantially below market rates. When costs exceed \$1.25 it is necessary to look for inefficiency in the program." Given regional differences and inflation, these figures obviously need adjustment in today's labor markets.

None of the evaluations of our sample projects provided cost per worker day, but we were able to estimate these costs in several instances. Wide variance was apparent. The Indonesia project fell within the range of adequate costs for a typical successful labor-intensive infrastructure project. The Kenya project was slightly above, even accounting for cost increases due to inflation. The East Caribbean project, which was considered labor-intensive and did create short-term employment while generating acceptable assets, incurred extraordinarily high costs. The Jamaica Feeder Roads project, because it was capital intensive, was understandably quite expensive from an employment perspective.

Long-term employment hinges on a project's creation of a permanent productive asset. Because successfully completed infrastructure requires maintenance to ensure long-term operation, it is important not only to gauge the success of completed works but also to assess the status of maintenance. In this respect, the projects fared as follows (their employment effects are summarized in Table 9):

- Kenya-Vihiga Rural Development. Roads had a marginal impact on long-run employment and were poorly maintained. According to an evaluation in 1982, the roads "have deteriorated so much in the five years since completion that they will require near total rehabilitation."

Table 9. Indices of Employment Generation in Sampled Labor-Intensive Infrastructure Projects

- Indonesia Rural Works. According to the project evaluation, "the analysis of 10 sub-projects, for which employment data are available for rural works, indicates employment increased by about 60 percent as a result of the irrigation...on roads projects, vehicular travel increased by an average of over 700 percent compared with the pre-project situation. Market prices to producers increased and the general level of commerce and economic activity increased." Maintenance was adequate. The explanation provided was that "traditionally community property, which is clearly perceived as not belonging to an individual or as the responsibility of a higher government level or body, is reasonably well maintained."
- Jamaica Feeder Roads. Project outputs were successfully completed. However, according to the evaluation, "there is no evidence to indicate that the Mission either called for a sufficient maintenance plan to start with or followed the issue sufficiently in recent years." Regarding the long-term economic benefits of the project, the evaluation states that smallholder production was low because of the negative economic environment rather than lack of incentive due to difficult market access. As a result, new roads provided by the project did not increase growth, and long-term employment was not created.
- Jamaica Integrated Rural Development. Assets were created but were poorly maintained. The evaluation stated that the project was not successful in absorbing labor permanently into the primary sector because agricultural prices were falling, so farmers had no incentive to produce.
- East Caribbean Basic Human Needs: According to the evaluation, the long-term employment effects were mixed, but a limited budget decreased the project's maintenance capacity.

An adequate net short-run employment effect requires a "yes" answer to questions 1 and 2 in Table 9. Kenya-Vihiga, Indonesia Rural Works, and East Caribbean Basic Human Needs met this test. For a project to have an adequate long-run employment effect, the answer to questions 3 through 5 must be "yes." Only Indonesia Rural Works met this test.

3.2.2 The Policy Context

Two conditions external to the projects--surplus labor availability and the potential for a positive rate of return on assets created--will largely determine cost-effectiveness for labor-intensive projects. Except for the two Jamaica projects, these two conditions were largely met.

The Jamaica Integrated Rural Development project assumed that household labor would readily be absorbed into the primary sector without pay. This turned out not to be the case, and labor shortages developed as the project pushed wages up in the immediate vicinity.

The potential for a positive rate of return requires that the completed project have an economic impact on the local economy. This cannot occur if other conditions inhibiting growth are not addressed as well. An area need not be burgeoning for infrastructure to be cost-effective. However, in

an economically stagnating area, infrastructure will not be cost-effective unless it is part of some comprehensive scheduled plan for stimulating growth.

Project documentation indicates that both Jamaica projects failed to meet this second condition of appropriateness.

In the Jamaica Feeder Roads evaluation, an attempt was made to understand the slow growth in road traffic by estimating what the economic worth of selected subprojects would have been had the economy grown at 7 percent per year. However, it was concluded that even a 7-10 percent annual rate of increase in traffic on the roads studied would not have changed the conclusion that the majority of the project roads were not economically justified. Furthermore, the evaluation expressed doubt that the benefits from the improved roads would be achieved without complementary inputs, land reform, and marketing facilities.

In the Jamaica Integrated Rural Development project, evaluators concluded that no assessment was made of the actual or potential demand for farmers' products. Instead, it was simply assumed that if farmers produced more, they would automatically be able to sell more. In fact, prices fell, and farmers were paying inflated wage rates while receiving lower returns.

The policy environment surrounding labor-intensive projects --macroeconomic conditions-- affects long-term employment in the same way that it helps or hinders growth. Return on infrastructure is calculated from changes in the income of the infrastructure user, that is, the farmer, trader, and the like, all of whom operate within this policy context. In the evaluation of the Jamaica projects, low incomes of these groups were noted briefly as related to economic stagnation. For Kenya Rural Roads, the evaluation noted that "overregulated pricing and marketing appear to be major constraints in limiting incentives for increased production of major crops, both food and industrial."

Policies favoring capital over labor will not deter proper analysis of various production alternatives if shadow prices are used, but if contractors are employed, such policies will affect bids or necessitate design complexity encompassing safeguards intended to ensure appropriate use of labor in the project. For example, on St. Kitts, the Caribbean Basic Human Needs project evaluation noted that "the employment-creating objective confronts the fact that on projects that are put up for bids to private tenders, bidders are seeking profit. On having the bid accepted, they have the right to choose their method of using labor, and also their personnel."

In sum, good design for a public project can work around undesirable market forces, but in the end the project does operate within this larger context. Weak design on the Jamaica projects failed to compensate for the missing appropriate conditions in the specific areas targeted. Except in the Indonesia Rural Works project, design ignored maintenance and thus long-term employment was adversely affected.

Why specifically was the Indonesian Rural Works project successful? Very simply, it met three important conditions for success:

- It was implemented under appropriate conditions of supply and demand in the product and labor markets.
- It did not operate in a highly distorted policy environment (labor price distortions were low).

-- It was designed to be administered and operated efficiently.

In addition, the project operated through local levels of government, which allowed for a greater cohesiveness and helped stimulate community development. Even here, however, luck helped because maintenance was carried out largely because of local cultural factors that favored self-help, not because maintenance was a part of project design.

3.2.3 Programming Implications

1. The single most important condition for the success of projects designed to increase short-run employment is the existence of a true labor surplus, at least in the off-season. Design is clearly secondary to this condition.

2. For long-run employment, adequate maintenance and the potential for a positive rate of return are central to the project's success.

3. Maintenance was so generally ignored in the five projects reviewed that the question must be raised: were the projects intended to generate only short-term employment? If short-term employment was indeed the intent, then project designs could have been simpler, with less reliance on complementary inputs that are sometimes both costly and critical to long-term project success. The point, obviously, is that roads that deteriorate are no longer roads. The goal of short-term employment could have been reached directly through a simple project to clear a few wide trails.

4. Infrastructure projects are often management intensive. Inadequate management was cited as a project constraint on all projects reviewed, yet no project attempted to deal with this problem by providing management training to some of the workers. Project design should include management training--providing that the success of the project does not depend exclusively on the people being trained, with the result that training failures lead to project failure.

5. Workers on infrastructure projects and beneficiaries of project-created assets are often two different groups of people. Beneficiaries were seldom required to contribute to project cost. This dichotomy between beneficiaries and workers should be carefully accounted for in the initial Project Papers in order to achieve a better balance between effort and reward. Among other things, this will reduce the suspicion, animosity, and even hatred between those who build projects and those who receive project benefits.

6. The more directly productive an infrastructure project is, the greater the chance that existing social and economic inequalities will be reinforced. This suggests that great care be exercised in initial project design to avoid any tendency to reinforce inequality. Such care is particularly necessary in light of A.I.D. policy regarding the poor and is consistent with the desire of local governments for political tranquility.

7. All projects fell behind schedule, apparently as a result of inappropriate employment of seasonal labor. According to the evaluation of the East Caribbean Basic Human Needs project, the delay in completing the project meant that insufficient labor was available when it was needed most. The result was that 80 percent of the young trees on two reforestation subprojects were lost because

they had been planted in the wrong (dry) season because that was the season when agricultural labor was available. This implies that great effort must be made in project design to realistically assess labor availability and to work within that constraint, not to try to work around it.

8. All projects reviewed paid cash wages based on time worked rather than on piecework. In none of the projects was productivity related to the wage system; in fact, productivity was not discussed at all in Project Papers. If the intent of a project is to simultaneously provide productive work opportunities and to create a productive asset, then the relationship between the wage system and productivity becomes critical to the success of the project. The programming implication is that project design must recognize the different incentive systems that operate for time and piecework rates. Whether time or piecework rates are chosen, the rationale must be explicitly stated, and the implications of the choice must be made clear for the success of the project.

9. Worker beneficiaries (i.e., those benefiting by their employment on the project) have generally been the poorer segments of the population. This suggests the desirability of "generous" levels of remuneration subject to two constraints. Wage levels that are too high tend to be dysfunctional because they attract people already employed. Also, if wages are too high, the project will simply collapse when A.I.D. departs.

10. The development of backward linkages through the purchase of local inputs has generally been a project afterthought. The programming implication is that linkages can enhance, sometimes greatly, the employment effects of projects and must be considered in initial project design.

11. Apparently, rural infrastructure receives priority in A.I.D. programming over urban infrastructure. In an attempt to locate urban labor infrastructure projects for this study, we reviewed a printout of all housing projects in Latin America. Although many of these projects cited labor-intensive methods of production, we found no Project Paper that evaluated or discussed in any detail the employment component of the project. This relative disregard for urban infrastructure may have been justifiable in the past, but today, in many cases, it may not be. Recent research calls attention to the productivity of most elements of the urban labor force, so urban labor-intensive projects merit attention. Also, political unrest typically begins in cities among people lacking both incomes and even modestly adequate living conditions.

3.3 Food for Work

3.3.1 Review of the Projects

A.I.D.'s experience in food for work has been fairly well documented within the context of food assistance. However, the purpose of food for work extends beyond short-run nutritional gains, and such projects can be viewed as a part of A.I.D.'s total efforts in employment and income generation. Food for work is analogous to an infrastructure project with wage payments at least partly in kind. (The Indonesia Rural Works project discussed in Section 3.2 was rooted in a food-for-work program.) As a part of PL 480 Title II, food-for-work guidelines are outlined in A.I.D. Handbook No. 9. Considerable experience has been accumulated since publication of that handbook, and present

practice increasingly views food for work as part of the broader development "package" offered to developing countries (A.I.D. Bureau for Food for Peace and Voluntary Assistance 1986).

For this evaluation, six projects for which sufficient employment information was available were reviewed: three in Africa, two in Latin America, and one in Asia. All except one, the Cape Verde project, were implemented through a private voluntary organization (PVO). The outputs for each project reviewed are listed below.

- Lesotho. Soil and water conservation (including irrigation, gully control, dam construction, and catchment protection) and some road construction
- Burundi. Rural roads
- Cape Verde. Water works and roads, specifically dikes, retaining walls, aqueducts, field clearing, and farm-to-market roads
- Bangladesh. Irrigation, drainage canals, flood control, land reclamation embankments, roads, and tanks
- Peru (urban). Street sweeping (and later some social infrastructure construction)
- Peru (rural). Reforestation

By functional category, these projects were distributed as follows:

Directly Productive	Economic Infrastructure	Social Infrastructure
Lesotho Cape Verde Bangladesh*	Burundi Peru-rural Lesotho* Cape Verde* Bangladesh*	Peru-urban*

*minor emphasis

As in the labor-intensive sample discussed in Section 3.2, project emphasis is on economic infrastructure. Food-for-work projects also seem to be concentrated on directly productive activities intended to increase agricultural production.

The food-for-work projects reviewed here are generally small. Although the Cape Verde project involved about the same number of workers as other food-for-work activities, at least one person per family was involved on the project because of the smaller population base. Female participation was higher in the food-for-work project sample than in the infrastructure project sample.

Make-work is either designed as such, or a project can deteriorate to make-work if the assets created ultimately serve no economic purpose. The urban Peruvian project involving street cleaning was make-work. The Bangladesh project was originally implemented as productive activities but resulted in some make-work because the assets that were created were destroyed. Although useful earthworks were constructed on the Bangladesh project, the evaluation noted that "the actual earthworks did not provide a long term or viable solution due to annual monsoon rains that destroyed much of the progress each year."

In general, food-for-work projects are administratively more taxing than are infrastructure projects. Food-for-work projects also typically face larger problems with corruption and graft. Some of these problems, such as diversion of some food to black markets, have become a regularly accepted feature on food assistance programs. On the Cape Verde project, there was some indication that the Government re-exported food to Angola in exchange for wood.

Employment amounts and costs are more difficult to compare for food-for-work projects than they are for any other type of employment generating project. Information is generally more available on food beneficiaries than on project workers, and total project costs are occasionally not well detailed. Again, as in infrastructure projects, a food-for-work project could have a positive short-run employment effect if (1) project workers were formerly unemployed or (2) positions vacated to participate in a food-for-work project were subsequently filled by the unemployed. Food distributed at a value rate higher than the local wage may act as an incentive for otherwise employed individuals to quit their work in favor of a food-for-work activity.

The basic characteristics of these projects are shown in Table 10. The short-run employment effects can be summarized as follows:

- Lesotho. Some short-run employment was directly created. Of the workers surveyed on the project, 52 percent of the women and 89 percent of the men were over the age of 46.
- Burundi. Some short-run employment was indirectly created. Project workers were farmers with less-than-average size land holdings, who contracted others to work on their land while they participated in the food-for-work project.
- Cape Verde. Short-run employment was created.
- Bangladesh. Short-run employment was created in part because of the especially low status associated with the works, thus ensuring that only the poorest availed themselves of the food-for-work project.
- Peru (urban). Short-run employment was created for women who previously had been housewives.
- Peru (rural). Short-run employment was created.

Based on the limited information available, the Bangladesh project was most efficient from a cost perspective in generating short-run employment. Productivity on this project was evaluated as adequate, and workers were paid on a piecework basis.

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From a long-term employment perspective, however, the Burundi project seems relatively more successful. The evaluation cited increased incomes and substantial multiplier effects, although it was not known how much of the increased economic activity was due to the previous year's record coffee crop and how much was due to the new roads. The rural Peru project documentation noted that "the declining profitability of small-scale agriculture in the highlands makes people reluctant to invest capital in this area, so it is unlikely that any additional income will be channeled into increasing production."

Table 10. Characteristics of Sampled Food-for-Work Projects

3.3.2 The Policy Context

As for infrastructure projects generally, two appropriate conditions determine cost-effectiveness in food-for-work projects: surplus labor availability and potential for a positive rate of return on assets created. A third condition affecting food-for-work projects is the agricultural disincentive that may result from the provision of food from external sources.

Surplus labor availability was evident in the projects examined. The potential for positive return was obviously not met in the urban Peru street cleaning project because no assets were created by this activity.

The third condition relating to agricultural disincentives received little attention in the project documents reviewed. In fact, the logical framework for the Cape Verde project simply assumed agricultural disincentives away. Of the three projects with evaluations that discussed disincentives, the Bangladesh evaluation reported that local prices fell because of the food brought into the area but that the fall in prices did not act as a significant disincentive to agricultural production. The reasoning was that because the majority of the recipients had no alternative employment during the same period, there would be very little reduction in demand attributable to the additional food distribution. At the same time there would be an increase in market supply to the extent that projects employed relatively skilled workers and migrants for whom payments in kind exceeded immediate food needs. Thus, village prices would be depressed during the project period but not so much as to erode production incentives for any new farmers in the same area. The Burundi project evaluators doubted that the food distribution would significantly affect agricultural production but left the issue for future analysis. The Lesotho evaluators believed that food aid was only a minor disincentive within the context of other more important disincentives resulting from adverse agricultural policies. Some disincentive effects were experienced in all the projects reviewed, although for the most part such disincentives were considered to be minor.

Food aid, to serve a positive economic purpose, requires a food deficit, which may or may not have been "man-made." Where agricultural policies discriminate against production, food aid may be used to relieve the adverse nutritional effects of a food shortage. Food for work as a specific type of food-aid program aims not only to address the symptoms of food shortage but the causes as well by seeking to eliminate the structural bottlenecks to production. Not all food-for-work projects address agricultural production through their works projects, although there is a logical relationship between the two.

Short-run employment effects in food-for-work projects are primarily the result of design. Longer run employment effects, although partially the result of design, frequently depend more on the project setting. This does not mean, however, that design does not influence longer term issues. For example, the evaluation of the Peru Title II (rural) project calls attention to the importance of the project's context:

PVOs tend to view projects individually as they come up, rather than in the context of the community in which [they are] to be considered. Thus, they are likely not to notice that Community A had several [food-for-work] drinking water projects and still is without an adequate supply of drinking water, or that Community B is building its third [food-for-work] sponsored school building even though it has no prospect of

securing teachers to staff them, or that a group of women in Community C has been performing menial labor for three years under the same leader.

Thus, to implement a project doomed to failure because of its setting is a waste of resources no matter how well it may be carried out in the short run.

Design problems also affect beneficiaries. In Burundi, farmers used on the project hired others to work their land. In two villages visited for an evaluation of the Lesotho project, individuals wishing to work had to pay a fee to have their names placed on the workers roster. In one instance, a fishpond was built on the land of a high-ranking official. Elites tend to take care of themselves first, and the sample projects seem to bear this out.

In conclusion, A.I.D.'s food-for-work projects from an employment perspective, based on the small sample of projects reviewed, have been of middling success from a short-run perspective and a failure from the perspective of long-run increased agricultural production. The larger issues surrounding food deficits were not addressed in three projects. The food-for-work projects were subject to high management costs and associated problems of theft and graft.

3.3.3 Programming Implications

1. Insofar as food-for-work projects concentrate on relief and do not directly result in increased employment once the project is terminated, the evidence suggests that the effects on the poor will be small in the short run and nil in the long run. Nor will food for work under these conditions alleviate the need for such assistance in the future. This suggests the need for food-for-work projects to concentrate more on productive asset creation.

2. When comprehensive postproject maintenance programs cannot be arranged through the host government, the benefits attained through the asset-creating activity cannot be sustained. This means that the "relief" enjoyed in the short run will be unavailable in the long run and that the project is essentially a food dole. In such cases, the project should be administered as such in the most cost-effective way possible.

3. The 1985 A.I.D. Workshop on Food for Work called attention to the many potential benefits of this form of assistance but did not stress the investigation of the economics of various kinds of food aid (A.I.D. Bureau for Food for Peace and Voluntary Assistance 1986). Along with the question of the permanency of the assets created, this issue is crucial to programming food aid. World Bank staff, for example, have used the concept of the "income transfer efficiency" of food commodity aid, which is simply the ratio of the per unit value of the commodity to the recipient to the per unit cost of the delivered commodity (Reutlinger 1984, 902). A dollar of aid transferred in some projects, for example, can be shown to convey as little as 20 cents to food aid recipients, whereas a dollar spent on other commodities may convey more than a dollar to recipients. The former in this case would obviously be the less efficient mode of income transfer. A study of PL 480 Title II in Egypt, for example, suggests that the income transfer efficiency of a dollar spent on milk is 20 times greater and that on oil is 3 times greater than for wheat (Reutlinger 1984, 905). The point here is that project planners need to consider not just foods, but the kinds of foods that convey the highest income transfer potential.

4. The majority of projects reviewed here attempted to create economic infrastructure with linkages to increased income but did not try to create directly productive assets (creating waterworks, for example, instead of factories). Food-for-work projects usually comprise many different subprojects that concentrate on different types of asset creation. In this review, the larger projects have been placed in the category under which the majority of the subprojects fall. If food-for-work projects continue to focus on economic infrastructure for which there are no postproject maintenance plans, then both long-run asset creation and employment generation benefits will tend toward zero. A case can even be made that the net effect of the assets and benefits will be negative to the extent that such projects waste resources that might have been used more productively elsewhere.

5. Noneconomic goals are sometimes important in food-for-work projects. For example, the sample projects in Latin America tended to stress community participation rather than asset creation or employment generation. However, the evaluators of these disincentives are not addressed systematically. This suggests that consideration of disincentives become a required part of the design of any food-for-work project.

9. Food-for-work projects are not inexpensive administratively, often reflecting the unusual management requirement associated with ubiquitous graft and theft. (In the case of starving people, of course, "theft" may be too harsh a word.)

3.4 Export Promotion

3.4.1 Review of the Projects

A.I.D.'s involvement in export promotion activities has been limited, and relatively little systematic information is available on the components for project success. We were able to locate only a few export promotion projects, and of these only a small number had been evaluated. Sufficient information was available on only four projects: three in Latin America and one in Africa. Projects attempting to increase export capacity through institution building alone were excluded because they were not directly employment generating projects.

The projects in this small sample were similar in terms of the types of goods exported and the targeted beneficiaries. All involved agribusiness activities and attempted to reach small farmers or landless peasants through increased primary production. The few activities not specifically agricultural were processed rubber, cut flowers, and wood products. Projects all appeared to be based on the principle of comparative advantage and used labor-intensive production and a relatively simple technology. Because these products had not previously been exported, they were classified as nontraditional. The Uruguay project was undertaken within the context of a national export-promotion program, complete with policy changes and International Monetary Fund (IMF) assistance. Other projects were carried out in a more localized setting.

As indicated in Table 11, A.I.D.'s efforts were spread throughout all stages of the export process and relied on both the public and private sectors for project implementation. All the projects had institution-building components, although the Latin American Agribusiness Development Corpora-

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tion (LAAD) project in Central America involved a nongovernment institution (a PVO formed as a public relations effort by several U.S. stockholder food companies).

In the normal functioning of an export project, at least five types of employment are created in varying degrees through

Table 11. Characteristics of Sampled Export-Promotion Projects and Specific Direction of A.I.D.'s Efforts

(1) increased demand for inputs into the primary sector (locally procured); (2) primary production; (3) increased demand for inputs into the processing sector (if supplied locally); (4) the intermediate productive process itself; and (5) transportation, maintenance, and so on. The technological mix chosen and the level of input imports (versus local production of inputs) greatly influence the capacity for employment generation. Every dollar spent on imported inputs decreases potential indirect income generation by a multiple amount.

All the export promotion projects created some employment, but only the Honduras project attempted to quantify it. According to the project evaluation, approximately 300 persons received wage employment in processing and packaging, and about 1,680 families either directly or indirectly benefited from the increase in agricultural demand.

In the LAAD project in Central America, processors did not know who their suppliers were because in many instances middlemen collected produce from farmers, so the indirect effects were unknown. Evaluators also found that small farms absorbed family labor before hiring outside workers. According to an early evaluation of the project, "the project in which LAAD-CA is currently involved employed 4,797 persons during a typical operating year." It was not precisely clear what this meant. A recent evaluation of the 1981-1983 \$6 million loan under the LAAD project pointed out that for the \$3.7 million disbursed at the time of the evaluation, only 126 new jobs had been created. In part, the low figure is attributable to weak economic conditions. Also firms such as those assisted "tend to eliminate unproductive workers and more effectively use the productive ones." It was speculated, for example, that one firm was "undecided about adding employees, preferring perhaps to install an additional line of shrimp peeling machinery."

No comprehensive information was available to estimate the employment effect in the Uruguay project. The Project Paper on the Kenya Livestock Development project had originally estimated that 5,000 permanent jobs would be created, but this projection was neither confirmed nor denied in the evaluation.

The structure and extent of employment created by these projects is indicated in Table 12, which shows that all employment categories experienced some increase. Because of limited information, we could not quantify the types of employment created. Several areas of potential linkages were not discussed in project evaluations, indicating that indirect employment effects may be underestimated. For example, transportation may have included not only transportation from farm to processor but also from processor to warehouse and warehouse to carrier.

Table 12. Sector Employment Increases in Sampled Export-Promotion Projects

Employment generation resulting from the projects was as follows:

- Honduras Agro-Industrial Export Development. Small farmer cooperatives provided raw materials to two exporters: Majores Alimentos, a tomato processing company, and Standard Fruit, a middleman for fresh cucumbers and tomatoes. Majores Alimentos, a domestic company, lost interest in dealing with small farmers and exporting outside of Central America. The company eventually abandoned its operations in the project area. The Standard Fruit Company project did export produce, but much of it spoiled en route. In terms of exports, therefore, the project was only marginally successful.
- LAAD Agrobusiness Development. According to a project evaluation, "Foreign exchange earnings generated by LAAD-CA investments under the first loan [were] expected to reach \$25 million, equivalent to \$3.33 for every \$1.00 committed by LAAD." LAAD itself, however, was unable to become self-sufficient through equity financing because it had a negligible dividend and earnings record, the preconditions for a successful stock issue program. Also, LAAD's efforts were constrained because of its small staff. Nevertheless, export expansion resulting from this project was quite successful.
- Uruguay Agro-Industrial Development. Information available indicates significant progress in income generation and employment. However, 40 percent of produced goods were sold internally.
- Kenya Livestock Development. Beef expansion did not reach the levels originally anticipated. The evaluation did not examine export results at all. Instead, it concentrated on why the project was unable to increase production.

From the evidence available, it seems clear that the LAAD and Uruguay projects probably came closest to meeting targeted goals. The Uruguay project's success is inferred from the way the project was progressing when the USAID Mission was disbanded.

3.4.2 The Policy Context

Although export promotion projects are very similar to small-scale enterprise projects, the conditions under which an export project can be successful are quite different in a few important ways. For example, export promotion can transcend the stagnating cycle of inadequate domestic income and demand. Small-scale enterprise cannot overcome this constraint unless goods are internally "exported" to areas where this condition does not exist. Exported goods, however, enter an international market where price and quality confront stiff competition. Thus policy conditions that inhibit achievement of low price and high quality are devastating to export-oriented projects.

Many problems surrounding price and competitiveness can be addressed in project design. Two, however, are more or less preconditions: (1) adequate infrastructure and (2) macroeconomic policies that do not distort price beyond an internationally competitive level. In agrobusiness activities, all complementary inputs in the production process must be in ample supply at appropriate prices at the beginning of the project and production constraints need to be eliminated.

No project in our sample was prevented from exporting because of gaps in the infrastructure. As part of a larger Kenyan Government, World Bank, and A.I.D. effort, some infrastructure was constructed for the Kenya projects. Infrastructure requirements from the intermediate stage onward are generally quite apparent; however, infrastructure needs such as transportation from producer to processor are more likely to be overlooked.

Pricing policies that reflect world commodity prices and scarcities of domestic factors of production, including interest and exchange rates, are of paramount importance for competitive supply. Without domestic free-market pricing, there are disincentives to producing exportables composed of materials and resources that are in large supply and disincentives against appropriate factor intensity in the technology mix. The greater the price elasticity of demand for the exported good, the greater the chance that price distortions will affect competitiveness. None of the goods exported under these projects faced an inelastic demand; for most, price was a given, and the project farms and firms could sell all they could produce at the given price.

Policy adversely affected the Kenya livestock project, positively affected the Uruguay project, and was not discussed for either the Honduras or LAAD project except in terms of pricing assumptions in the logical frameworks. The Uruguay project was implemented at a time when the Government was shifting its policy toward export promotion. The evaluation noted the shift in policy and stated that the Government had continued to maintain its export-oriented focus. At the time of the Kenya livestock project, however, the World Bank was negotiating a beef price hike with the Government as an incentive for increased beef production. Any increase in beef exports was dependent on increased supplies. Because prices were not raised as planned, the project was adversely affected. These policy-related considerations are described briefly in Table 13.

Table 13. Policy, Quality Control, and Marketing in the Design of Sampled Export-Promotion Projects

Project design greatly affects the potential for a project's success, although it is secondary to both policy and appropriate conditions. No project made quality control an integral part of design. It can be argued, however, that quality is as important as price in the international market for foodstuffs. These quality aspects of the sample projects are highlighted in Table 13.

The Honduras project attempted to use technical assistance to help reduce the amount of unexportable goods produced. The evaluation was critical of the Standard Fruit Company for failing to discuss with small-farm producers the quality problems associated with U.S. import rejections. Uruguay project designers decided to head off potential quality problems with Latin American-produced cans by importing cans from Canada. Alternative processes were rejected because of cost.

Technical assistance to farmers was a component in three of the four projects reviewed. Where both public and private technical assistance was offered to farmers, evaluators found private technical assistance to be more beneficial. The quality difference between private and public technical assistance was noted as a lesson learned and seemed to be absorbed by USAID/Honduras for proposed export-promotion projects in the 1986 Country Development Strategy Statement call for private sector assistance in this area.

The LAAD project evaluation noted that the "technical assistance to small farmers that is most relevant and best utilized is that provided by knowledgeable processing plant representatives who come in repeated contact with farmers over an extended period of time. Technical assistance provided by agronomists such as bank or government representatives tends to be less specific, less continually available, and thus less utilized than technical assistance provided by processing plant representatives." The project evaluation further asserted that informally trained technical representatives can often be more effective, both because they may possess detailed product-specific knowledge and because their socioeconomic status is more likely to be similar to that of farmers. The Kenya livestock project evaluation mentioned that technical assistance, instead of supplementing the skills and knowledge available on the ranches, was supplanting local capabilities with external management dominance.

The technology mix affects competitiveness and profit potential. Although the technology mix is influenced largely by pricing policies, it is also affected by information flows. When factor intensity decisions are based on limited information, poor choices result. Technology choice was not thoroughly discussed in any project reviewed. In the Uruguay project, policy changes created conditions favoring minimum capital use for maximum efficiency. At the same time, project documents stressed the need for capital investment to make production more cost-efficient; consequently, the most technologically advanced machinery was imported.

Marketing is often one of the weakest links in the export process, and all projects addressed potential marketing problems to some extent. No substantial improvements were made in this area, however, although A.I.D. sought to improve marketing capabilities on these projects in several ways (see Table 13).

Project results in this important area of marketing can be summarized as follows:

- Honduras Agro-Industrial Export Development. Attempts were made to establish a marketing link by sending four Government employees overseas for MBA's in agrobusiness and two for marketing internships. The former were sent as planned, but the latter were not. A marketing link between the processors and the U.S. market was

crucial to the success of the project, yet other than training, no mechanism was established to accomplish this. The Standard Fruit Company, the sole exporter of project goods, had originally established marketing links with a related company in New York. When the subsidiary company decided against marketing the Honduran goods, Standard Fruit Company was forced to negotiate with brokers in Florida on a year-to-year basis. This was not viewed by the project evaluation as a viable alternative: "There have been many such arrangements in the past, and few, if any, have been satisfactory over time." Training helped build indigenous resources, but the project was not able to substantially close this marketing gap.

- LAAD Agrobusiness Development. According to the evaluation, LAAD set up a subsidiary in Miami to provide advice. Apparently, three divisions were established: one for fruits and vegetables, one for flowers, and one for wood products. The Miami subsidiary was considerably understaffed and was therefore unable to provide all the services required.
- Uruguay Agro-Industrial Development. According to project documentation, the Government was well advanced in coordinating marketing for key agricultural commodities, but marketing and technical assistance was still required for fruit and vegetable canning plants. No information was available on whether these marketing capabilities were improved.
- Kenya Livestock Development. Marketing problems existed between the producer and processor because of controlled beef prices and inadequate marketing facilities and disease-control regulations. The project attempted to establish cattle markets and to provide trains and cattle trucks and marketing facilities for sheep and goats. According to the evaluation, Government marketing facilities appeared to be growing while private facilities were diminishing. The evaluation suggested that the emphasis should be on increasing private trade.

Export promotion can have beneficial long-run effects on an economy. But if for some reason, whether quality or price, the product cannot feasibly be exported, it will be sold in the domestic market. This may have negative effects on other indigenous producers. This happened in both the Honduras and LAAD projects, both of which were plagued with a cycle of inadequate demand and inadequate income. In the Honduras project, cucumbers and tomatoes were sold on the domestic market. The domestic price of tomatoes was higher than the international price. The flood of cucumbers hurt farmers who grew a side crop of cucumbers for cash. The project evaluation urged that "ways must be found to dispose of nonexportables, either in local markets or as further processed, in ways that will maximize returns to farmers. As production increases, the disposal of nonexportable products will become a serious problem." In the LAAD project, prices completely collapsed for yucca, ruining many small farmers.

Limited information makes it difficult to evaluate project success. Available evidence, however, suggests that the Uruguay and LAAD projects were better able to meet predetermined targets than were either the Honduras agrobusiness or the Kenya livestock project. Policy seemed to have had a highly positive influence on the Uruguay project and a negative influence on the Kenya project. Generally, the projects were implemented under appropriate conditions. However, given the adverse Kenya policy setting for beef production, the project seemed ill-advised. Curiously, the Honduras

project seemed to lack the dynamism characteristic of profitable ventures. The LAAD project was partially supported by strong technical knowledge and sound business connections.

We have discussed the policy context of past export promotion efforts, recognizing that these projects were necessary in light of large external debts and the continued need to import. But there are new and somewhat ominous signs on the international economic horizon that may necessitate yet another reappraisal of export promotion. While neither the debt issue nor the need to export will disappear, there is evidence that it will become relatively more difficult for countries just beginning to export to enter world markets. In effect, as Irma Adelman (1984) has suggested, external conditions are causing a reassessment of the export-led model. The central contention is that a strategy that is agriculturally, rather than export, driven may be appropriate for countries that have not yet broken into industrial export markets. Such a strategy would be based on a public investment program intended to increase agricultural output. The heart of the strategy "consists of building a domestic mass-consumption market by improving the productivity of agriculture and letting farmers share in the fruits of the improved productivity" (Adelman 1984, 944).

There are three important arguments for a strategy that is agriculturally driven. First, this strategy will stimulate domestic demand for industrial products, through linkages and through its distributional effects. Second, because agriculture is far more labor intensive than manufacturing, this strategy favors growth and employment and assumes the contours of basic needs and food security programs. Finally, this strategy reduces risks, mitigating the effects of weather and environment through irrigation and pesticide programs. Industrialization would be promoted, in effect, by expanding internal demand for consumer and other industrial goods. Internal demand will be especially important in the years ahead because the rate of growth in world demand for imports may drop to about one-half the level of the 1960-1973 period (Adelman 1984, 938-939).

3.4.3 Programming Implications

1. A.I.D.'s involvement in export promotion has been almost exclusively in agricultural products rather than in light manufactures or handicrafts. Neither the rationale for such concentration nor its appropriateness in the future is clear.

2. Local government commitment to export promotion has generally been slight. Thus, future programming in this area will require a greater commitment from host governments.

3. Price and quality determine export competitiveness. Price is influenced by economic policies and technology mix. Policies have not always been well examined in projects, and technology mix has been left for local decisions based on local information. Quality control does not seem to have been approached in a sufficiently methodological manner. All this suggests the need for greater attention to information flows, including feedback on quality problems.

4. Private technical assistance has generally been more useful and of better quality than public technical assistance. A.I.D. ought to make a conscious effort to increase its reliance on the private sector for technical assistance.

5. Marketing improvements have generally not been achieved, even when the need for such improvements has been noted. Greater use of private sector mechanisms, such as third-party-commissioned marketing, deserve greater study and possible use.

6. Crop insurance for small farmers and measures to prevent internal dumping need to be made a more prominent part of export promotion projects.

7. Projects took much longer to achieve specific targets than originally anticipated in two of the four cases studied. Future programming should give greater weight to the time requirements of export promotion projects.

8. Export promotion projects are recognized as essentially process-oriented projects in which, for sustainability, a viable process must be established that will endure long after the project formally ends. Yes such projects are typically not evaluated from beginning to end. This suggests that the time frame used in the evaluation of export promotion projects must be longer than that used in projects of a more directly productive or discrete nature.

9. As world demand for exports slows down, export promotion in countries not already heavily involved in exporting may be severely disadvantaged. This will necessitate that A.I.D. carefully examine alternatives to export-promotion projects for these countries.

3.5 Small-Scale Enterprise Credit and Technical Assistance

3.5.1 Review of the Projects

For this review, 10 small-scale enterprise projects were found that had sufficient evaluative information on employment generation for analysis: 4 in Latin America and 6 in Africa. Projects in Asia were still in progress.

Small-scale enterprise development projects generally include both credit and technical assistance components, but during implementation one type of assistance usually takes priority over the other. Of the eight projects that offered both credit and technical assistance, six stressed credit over technical assistance. In projects in Africa, the relative emphasis on credit and technical assistance was more evenly split than in projects in Latin America, which tended to concentrate on credit.

Technical assistance projects were generally more localized than credit projects because credit can be more easily dispersed over a larger area. The Africa projects in this sample distributed credit through PVOs; no commercial banks were used. In Latin America, the credit distribution function was split between public and private banks. Credit was provided for both fixed and working capital and was generally not otherwise available for project beneficiaries. Of the 10 projects examined, 5 were rural, 4 were both rural and urban, and only 1 was urban.

The projects examined are more diverse than those in infrastructure or export promotion, both in terms of target beneficiaries and method of assistance; therefore, they cannot be summarized easily in tabular form. Furthermore, the use of nomenclature was rather mixed. For example, in the Peru

project tailors and bakers were considered part of the industrial sector, whereas in the Upper Volta (now Burkina Faso) project tailors were considered part of the artisan sector. In the Entente Fund project in Africa, bakers were considered part of the agriculture sector. Thus for this discussion, a more descriptive approach is necessary than for the other types of projects reviewed.

Project results can be summarized as follows:

- Peru Rural Enterprise Development II. Credit was the more systematic component of the project. The Central Bank promoted credit through radio and television, while bank branches sought borrowers individually. Most enterprises assisted were family owned and were in the informal sector. Seventy percent of the loans were in the industrial sector, where over half went to tailors, bakers, and carpenters. Thirteen percent of the loans went to artisans, 9 percent to services, and 7 percent to retail trade. Eleven percent of the loans went to new firms.

Initially, the technical assistance component was not aimed specifically toward the needs of small business. The urban extension of this project, however, based on what was learned from the rural project, required potential borrowers to receive technical assistance before loan disbursement. Banks added a portion of the technical assistance cost to the loan amount, a practice that borrowers had found acceptable during the course of the original project.

- Colombia Small Industry Development. Loans were categorized into four areas: (1) confidence credits to very small first-time borrowers, (2) professional credit involving consultation on technological improvements in manufacturing, (3) production marketing credit for working capital to more established medium-size business, and (4) community credit for cooperatives and other local activities. Specific types of businesses within these categories could not be ascertained. Over a 3-year period, 207 technical assistance activities were financed for about 3,441 participants. An additional 499 enterprises received consultant services (purchasing, sales, and so on), and 463 received accounting consultant services.

Technical assistance was not confined to credit recipients. Evaluators viewed the technical assistance program as less successful than the credit component, basically because national technical assistance needs had not yet been determined. As in the Peru project, no specific information was given about how these programs functioned. Evaluators recommended that technical assistance be made available only to credit recipients and that specific technical assistance needs be assessed before loan approval and linked to the extended credit.

- Ecuador Small Enterprise Development. Of the total A.I.D. loan, 61 percent of subloans was for fixed assets and 39 percent for working capital. Many small enterprises were classified as manufacturing, involving such products as metal, small appliances, furniture, windows, bricks, glassware, food preserves, sausages, rubber tires, poultry, crushed rock, and rice. Technical assistance encompassed recipient training, but the evaluation provided no specific information on this component.

- Chile Small-Scale Regional Development. The project was designed to bring productive ventures from the design stage to profitable activities. Ideas were submitted by groups or by project staff, who would then try to locate investors. Most activities were in agricultural processing, such as frog production, mora (a berry) processing, and mushroom collection, or in the artisan sector, such as stone polishing. Financing was obtained from commercial banks.
- Upper Volta Rural Enterprise Development. About 80 percent of loan recipients interviewed for the evaluation had never before received a loan. Project survey results showed that clients usually were the smallest scale entrepreneurs and that a large proportion of the loan went to the local majority ethnic group, which previously had been underrepresented in retail trade. Fifty percent of loan recipients were in commerce (from peddlers to wholesalers); 25 percent in the artisan sector (tailors, carpenters, repair shop owners, photo studio owners); and 25 percent in livestock and agricultural production, including fowl and vegetable production.

The project was originally a technical assistance effort but shifted to credit as the program progressed. The evaluation described the reason for this shift as follows:

PfP [Partnership for Productivity, a PVO] initially took a traditional approach to management training, attempting to teach disciplines such as elementary bookkeeping, inventory control, monthly balance sheets, and profit and loss statements. Few PfP clients learned these techniques, however, and almost none used the information they so painstakingly recorded as a management tool to analyze what was happening in the business. Books were kept, explained several clients to the evaluation team, only to please PfP staff and visitors. The clients claimed they instinctively knew all they needed to know about the status of their businesses. Even the innovative management and accounting systems, designed for illiterate Voltaic entrepreneurs (including pictographs and color-coded boxes) were not found to be useful. Based on these observations PfP decided to concentrate on general business planning and working capital management....

- Entente Fund African Enterprises. The project provided credit and some technical assistance to the five Entente Fund member countries. Technical assistance was not a salient project feature. The credit beneficiaries for each Entente country assisted were as follows:
 - Niger. Loan size ranged from \$1,000 to \$400,000 (converted from the CFA francs cited in the evaluation). Twenty-eight percent of credit recipients were in carpentry; 20 percent were in garages and other transport-related enterprises; 19 percent were poultry farmers, food processors, or bakers; and 14 percent were in hotels and restaurants.
 - Upper Volta. Three of the loans were made to the two largest factories in the country, while 45 percent of the loans were for less than \$25,000. Several loans were made to the relatives of government officials. Of the total number, 30 percent

were in construction, 20 percent in commerce, 20 percent in agriculture, 10 percent in factories, and 20 percent in services (of which 5 percent were in hotels).

- Benin. Eighty-four percent of the loans were for less than \$25,000. Of the total number, 78 percent were for small traders, 91 percent of whom were individual entrepreneurs engaged in a variety of lines such as restaurants, plumbing, retail cloth, and bicycle repair.
- Togo. Slightly more than half the loans were for less than \$25,000. Of the total number, 40 percent were in agriculture, most for individual entrepreneurs, and 36 percent were for commerce.
- Ivory Coast. Seventy-two percent of the loans were for less than \$25,000, and 20 percent were for less than \$3,000. Of the total number, 41 percent went to commerce, 21 percent to crafts, 19 percent to agriculture, 12 percent to industry, and 7 percent to transport. The industrial sector received half of the total amount loaned.
- Kenya Rural Enterprise Development. Although the focus seemed to shift between credit and technical assistance, A.I.D. funding was targeted to the technical assistance component. Clients were trained in accounting and bookkeeping and were involved primarily in petty trade (although toward the end of the project attention began to be directed toward manufacturing, services, and group activities). The project included a pilot demonstration lending component, and field consultants often assisted clients in obtaining loans. As a direct result of these activities, PfP, the PVO administering the project, was perceived primarily as a lending agency. Very little information is available about the specific firms assisted.
- Botswana Small Enterprise Development. Although designed primarily to provide technical assistance, this project was perceived essentially as a credit mechanism (as in the Kenya project). "Since most applicants are typically semi-literate or illiterate, the application procedure requires a significant input of time on the part of PfP officers, especially in light of the popularity of the program. As such the project goal of providing management assistance has been compromised at the expense of the additional goal of linking small producers to sources of financial assistance. This has resulted in the perception that PfP is a source of financing." Eighty-eight percent of the total loan recipients were individual entrepreneurs, 50 percent of whom had had no schooling. For this 88 percent, their business was their primary source of income. Beneficiaries were of a low socioeconomic status.
- Botswana Rural Enterprise Extension Service. This project seemed to be aimed toward a more economically advanced clientele than the Botswana project described above. According to the evaluation, "starting a business in Botswana is merely a means of diversifying one's wealth with little risk or effort. The majority of small enterprises do not need capital as a result of this unique commercial environment." The project provided technical-skills training in record keeping, skills management, and business policy to individual clients through extension agents and through five short (6-day) courses on cost, pricing, and management skills.

- Lesotho Entrepreneurship Training. Opportunities Industrialization Center, International (OICI) provided business training courses on record keeping, accounting, legal issues confronting small enterprise, production and planning, financial management, personnel and customer relations, and business planning and budgeting. Experts were occasionally called in to discuss topics such as taxation, business finance, and labor relations. Most beneficiaries operated cafes and general stores, and nearly half were women.

The basic characteristics of these projects are presented in Table 14. A study recently completed for A.I.D. (Hunt 1985) suggests that when job creation is the primary intent, the best results will be obtained if credit is allocated as follows:

- To small- and medium-scale enterprises rather than to microenterprises
- To manufacturing enterprises rather than to those involved in service activities, and to both of these rather than to those involved in retail trade
- To new firms rather than to existing (often capital-intensive) firms for expansion, and for longer term investment rather than short-term working capital

Short-run employment objectives may sometimes be sacrificed to create a small business base, reduce underemployment, increase productivity, or eliminate negative attitudes toward the private sector that bar sectoral growth. Long-run employment effects depend largely on such factors as forward and backward linkages and value added in the enterprise, as well as such broader issues as policy and the level of economic integration. There is some evidence that the general level of overall development affects the amount of employment that can be generated by stimulating small-firm development through credit. This makes intuitive sense because growth and consequently employment generation cannot occur in an area with weak, undeveloped linkages.

Table 14. Characteristics of Sampled Employment Generation Credit Projects in Twelve Countries

Table 14 (cont)

All sample small-scale enterprise projects in Latin America considered employment generation an important project output. Evaluators of these projects were generally satisfied with the employment outcome. Only the Colombia project evaluators thought that the project would have had greater overall effects had it concentrated on policy changes rather than on credit. Evaluations of the sample Africa projects, however, did not share the optimistic employment appraisals found for Latin American projects. Evaluators found, with few exceptions, that large amounts of employment were not created.

The effects of the projects reviewed on employment generation can be summarized as follows:

- Peru Rural Enterprise Development II: Among firms surveyed, new jobs for enterprise owners increased 10 percent, jobs for family members increased 20 percent, salaried worker jobs increased 65 percent, and apprentice positions increased 5 percent. Although forward linkage could not be estimated (there were no estimates of the appropriate multiplier), each loan dollar was estimated to have added \$1.27 in purchases of raw materials among interviewed firms. In general, each dollar loaned may have resulted in about \$3.00 in new income generated.
- Ecuador Small Enterprise Development. Most loan money was for fixed assets. The average increase in the use of raw materials was 61 percent. Evaluators were generally satisfied with the amount of employment created.
- Colombia Small Industry Development. Professional credit generated about 40 percent as much employment as the confidence credits, while production marketing credits generated only about 5 percent as much. Marketing credit was for working capital.
- Chile Small-Scale Regional Development. Evaluators indicated that the various subprojects were self-sustaining, profitable, and generated substantial employment.
- Upper Volta Rural Enterprise Development. Few jobs were created on this project, partly because of the high percentage of loans in commerce and for working capital. The evaluation indicated that because sectors receiving credit had been suffering severe underemployment, loans did more to increase productivity than employment. Sixty-seven percent of those interviewed reported no change in employment, and 25 percent cited some increase in employment. This is biased upward because it excludes abandoned or bankrupt firms. Evaluators believed that although concentrating on fixed rather than working capital would theoretically increase employment, employment possibilities continued to remain small because of the overall low level of development. The inadequate demand deriving from the low level of income of subsistence farmers continued to be a major obstacle to growth.
- Entente Fund African Enterprises. Employment creation was not stressed in the evaluation, and as a result we can only speculate about employment creation.
 - Niger. Compared with other Entente countries, the Niger project was successful in creating employment. Ninety percent of the loan funds were for fixed assets, and 50 percent were for new firms. The evaluation stresses that coordination and targeting of sectors probably affected employment. "Also unclear is whether specific economic sectors should be targeted for sub-loans under the program. In Niger,

where this was done, results seem to be markedly superior both in terms of contributing to sectoral growth as well as helping the bank to develop expertise. In other development banks, scarce technical talent has been spread very thin by trying to service a broad spectrum of small enterprises."

- Benin. Very few jobs were created because most credit went for working capital and none to new firms. Small traders received most of the loans.
- Togo. Not enough is known to be able to determine why so little employment was created. Most loans were for fixed assets in agriculture and commerce, with several loans going to new firms, yet the project generated few jobs.
- Ivory Coast. Almost all of the funds were used for fixed assets, and most loans were for new firms. The greatest amount of money went to the industrial sector, probably accounting for much of the employment creation.
- Kenya Rural Enterprise Development. The jobs created were primarily in manufacturing. Generally, the project was not successful in creating employment in any other area.
- Botswana Small Enterprise Development. Little is known about the project's operations other than that most loans went to carpenters and traders. As a result, we cannot determine why "little progress was made in increasing employment." Overall, the evaluation seemed pessimistic about project economic benefits.
- Botswana Rural Enterprise Extension Service. The project trained 288 clients and 26 local advisers. The evaluator believed that the project had the potential to affect the community positively but that training was often not reaching enterprise owners.
- Lesotho Entrepreneurship Training. Entrepreneurs were generally pleased with the instruction received, and many cited resultant financial gains. The evaluator believed, however, that although beneficiaries were enthusiastic about the courses, there was little indication that the project had accomplished much economically other than improving competition among the entrepreneurs. Although beneficiaries cited increased profits, nonparticipants cited increased profits as well. The evaluator noted that very little if any employment was created through this project because the main beneficiaries belonged to economic sectors that on average do not create large amounts of employment.

The employment generating capacity of projects in Latin America and Africa cannot be compared because of the large differences in average loan size. The Latin America projects all lent to what A.I.D. has traditionally defined as a small business (with the exception of the professional and production marketing credits in the Colombia project). Many Entente Fund subloans, however, went to firms that well exceeded even liberal definitions of what constitutes a small business.

Costs per new job created are also nebulous indicators within this framework because the achievement of other equally important objectives is not taken into consideration. Also, only two evaluations--those for the Peru and Upper Volta projects--cited figures on jobs created per average firm. The other figures presented in Table 14 are estimated. We therefore are left with only a

qualitative interpretation of the employment generating effects of the projects and the associated financial costs. Based on the slim evidence available, the Latin America projects seemed more successful in terms of small-business employment creation. Although projects in Niger and the Ivory Coast generated fairly substantial employment, questions relating to loan size prevent definitive conclusions on why these projects were successful.

3.5.2 The Policy Context

The single most important condition for small-scale enterprise development is effective consumer demand--the ability as well as the desire to purchase. Where incomes are inadequate even for subsistence, enterprise promotion will be impeded. The subsistence economy in the Upper Volta project area, for example, provided a very difficult environment for PfP in its attempts to stimulate entrepreneurial activities. Small enterprise promotion also requires at least minimal infrastructure to ensure links between raw materials and final consumers. No project cited inadequate infrastructure as a hindrance to enterprise promotion, but several evaluations stated that local backward linkages (e.g., inputs for artisans) needed more attention. Enterprise expansion can only occur within a functioning market mechanism.

In market-oriented economies, lending is typically a profitable private sector activity. Credit "shortages" are symptomatic of some other problem such as a legal maximum interest rate that is below the market-clearing price of capital, an environment hostile to saving, and the like. No project in our sample confronted these more general economic problems surrounding the need for credit. Only for the Colombia project did evaluation suggest that credit disbursement would have been greater had the project been directed more toward reducing lending constraints.

For the Peru project, it was suggested that the inability of small firms to obtain loans from commercial banks was due to collateral requirements and the small firms' lack of "incorporation." The reasons for commercial bank failure to lend to small business were not analyzed; rather, small-business lending was encouraged through a quasi-government institution. The project was successful in institutionalizing small-business lending through this organ and was able to increase the autonomy of rural bank branches in approving small-business loans; however, low interest rates resulted in decapitalization of the funds and led to direct Government funding.

In the Chile project, commercial banks followed their normal loan procedures. In the Upper Volta project, local banking practices required that loan recipients have a minimum monthly salary and fully collateralize the loan, a totally unfeasible requirement. Government of Upper Volta regulations set maximum interest rates for small-business lending at 15 percent; the PfP project calculated that an interest rate of 27 percent was needed just to cover administrative costs. Thus Upper Volta's banking regulations were so stringent that even a nonprofit lending institution could not break even.

In the Entente Fund project, banking reform, ineffective loan guarantee and business promotion measures, and economic setbacks reduced incentives for activities in this sector. In short, factors external to the banks themselves appear to have played an important role in limiting the program's success. In several Entente banks, regulations for small-business loans inhibited small businesses from getting loans. In Togo, for example, the development bank requires that loan applicants open an account with the bank for an amount equal to about 40 percent of per capita income for

nonsalaried workers, pay a small application fee, and have a co-signer (generally a Government employee).

Although interest rates are generally not set below the level needed to cover administrative costs (Upper Volta is an exception), real interest can be sabotaged by inflation and can result in negative returns and decapitalization. Loans may permanently transfer resources to the private sector or may encompass implicit costs to the borrower, thereby raising effective interest rates. A badly designed credit program can cause both creditors and debtors to become disillusioned with borrowing and can reduce the likelihood of future effective and sustained business lending. In four of the projects in which evaluations discussed interest rates, three set rates below the inflation rate. Following a flood of recent literature on the subject, one may speculate that subsequent lending programs were more careful in setting rates that would yield positive returns (see Adams, Graham, and Von Pischke 1984). A recently implemented extension of the Peru credit project discussed in this paper, for example, planned to tie interest to inflation.

At the same time, a recent study highlights the need to look beyond nominal interest rates and profitability (Kilby and D'Zmura 1985). Of five microenterprise lending projects examined, four had internal rates of return above 100 percent, yet none of these projects was successful when measured in conventional terms of interest income covering administrative costs and capital erosion. "The lesson to be drawn is that self-sufficiency or project sustainability, although highly desirable, should not be equated with economic success, nor its absence with a failing project" (p. xi).

The administrative and financial record of these projects was often quite favorable. The Peru project evaluators found that although small business loans involved slightly higher administrative costs than did commercial loans to traditional borrowers, small business loan delinquency and default rates were lower. On average, Cuzco branch office loans cost only \$49 to process and 4 hours of the bank's technical staff time to visit a prospective borrower and analyze feasibility. Most research indicates that loans for African entrepreneurs, however, are more costly. Evaluations indicate that this was true on the Upper Volta and both Botswana projects. In the Upper Volta project, the average cost of administering a loan and providing technical assistance was twice the amount of the average loan disbursed. In Botswana, evaluators found that the average cost per loan was two-and-one-half times the average per capita income of surveyed enterprises. Evaluators tended to believe that little could be done to reduce these costs.

3.5.3 Programming Implications

1. Most loans were disbursed in cash (in five of the seven projects). The two projects that used checks or purchase orders to suppliers encountered no difficulties with the procedure. On one project that disbursed loans in cash, evaluators found that loans were not always used for their intended purpose. This suggests that noncash loans should be considered more frequently.

2. Generally, when employment creation is the most important criterion, priority ordinarily should be given to small-to-medium-size firms rather than to microenterprises, to manufacturing industries rather than to service industries, and to service industries rather than to retail industries. However, under appropriate conditions, lending to microenterprises (one to five persons) can be very productive.

3. Default rates have been found to be largely a function of bank management (e.g., collection efforts, willingness to reschedule). There was no indication from the sample that the risk of default is greater for small borrowers than for larger borrowers.

4. The income-generating capacity of small enterprise projects is a function of the adequacy of linkages already developed within an economy: the greater the economic integration, the greater the income-generating potential. This suggests urban areas, where linkages are strong, as natural starting places for small-enterprise expansion.

5. Projects have been more concerned with the interest rates themselves than with the spread between the cost of funds and the on-lending rates. Greater explicit attention needs to be directed to this area.

6. Private sector financing in a market-oriented economy can be and often is a profitable activity, both in the financial sense and in the economic sense of contributing to allocative and productive efficiency in the economy. Unprofitable lending is a result of distorted policy or poor information. Intervening at the project level to "fix" problems caused by a poor policy environment may be less appropriate than eliminating the policy.

7. Several Latin American project evaluators have concluded that, in the absence of policy changes, small business is best assisted when technical assistance (1) is linked to credit, (2) is obtained before the credit is received, and (3) is designed not as general education but as problem solving.

8. Among the African projects reviewed, there is much less consensus on what works best where and much less reported success. Some projects wrestled with credit and technical assistance as an "either/or" question, a practice probably at odds with A.I.D.'s experience and current emphasis. Also, technical assistance was provided more in the form of general education rather than as problem solving, usually a misdirection of emphasis.

4. CONCLUSIONS AND PROGRAMMING IMPLICATIONS

Standard (neoclassical) economic analysis guides economic thinking in most development agencies. In this approach, the relationship between capital and labor is expressed in a production function based on a given technology. Within this framework, growth is related to employment, and unless the technology of production changes sharply, or prices become rigged in favor of capital so that capital is substituted for labor, or management succeeds in using resources more efficiently, increased growth means increased employment. This is the basic conceptual underpinning of this study. It is an approach fundamentally different from that taken in most A.I.D. evaluations, which rest on a review of a given project in relation to the four standard components of the project's logical framework (inputs, outputs, purpose, goal).

The limited data available suggest that economic growth tends to bring along the people at the bottom of the economic ladder through increased productive employment of various kinds. Obviously, growth based on capital-intensive strategies will not do this, but high growth tends to occur in policy settings that do not inhibit employment. From this microeconomic perspective, therefore, growth and employment are inextricably connected.

This relationship carries over into the macroeconomic sphere as well. The impetus to growth is demand. On the basis of the higher rates of saving observed among higher income households than among lower, an equity-oriented growth policy, for example a "basic needs" policy, will tend to accelerate growth. That is, such a policy will put more purchasing power into the hands of those who tend to spend a larger share of their income. In turn, this share will be spent on locally produced goods (simple handicrafts and manufactures) that are usually produced under labor-intensive conditions, thus reinforcing the spending multiplier. In the absence of a broad-based system of income transfers, usually difficult to achieve technically and politically in developing countries, employment is simply the most efficient income-distributing mechanism. As both a function and feeder of growth, employment is a critical component of growth and the broader changes in society we have come to call development.

A.I.D. and other donors have made a strong case for policy reform in developing countries. Essentially, there is little that A.I.D. can do through employment projects if a developing country has a hostile policy environment. If A.I.D. is to help, then policy must be changed.

It is important to note, however, the danger in this logic. With correct policies, the expectation is that competitive forces in both product and factor markets will direct resources into their most efficient uses. Set the market free and it will do the job. Yet even efficient resource allocation will not solve all problems, and there will remain wide problem areas in which A.I.D. can play a positive role. A developing country may need help in identifying problem areas at the policy or project level. The need for trained manpower then becomes urgent. Institutional changes come in rapid succession, requiring market research, establishment of technical standards, improved raw material supplies, refinement of government regulations, a more sophisticated tax policy, and the like. New credit channels must be explored. Some infrastructure problems require immediate solution. The list of possible contributions that A.I.D. can make to development multiply exponentially as the policy environment improves. Finally, even when the economy is working well there may be pockets, sometimes quite large, of the unemployed and the underemployed that require imaginative and timely assistance that balances relief with incentives.

This section briefly examines some general relationships between policy and project success and considers some of the implications to be drawn from this sample of A.I.D. experience with employment generation projects. The policy environment is very mixed, with some countries awash in policies that reduce both growth and employment, and ultimately equity, and others in which policy is supportive of both growth and employment.

4.1 Some Generalizations

Employment generation projects work best in fast-growing economies free of policy and administrative distortions, but typically that is where they are least needed. In a sense, employment generation may be a somewhat misleading concept. Labor, for example, is not scarce, and the constraint is capital (and associated inputs). The employment "problem," therefore, might be more appropriately construed as one of the scarcity or inappropriateness of inputs other than labor. Second, the data on labor forces in developing countries are grossly inadequate, so whatever one says in the way of policy recommendation rests on a weak empirical base. Finally, unemployment as such may not be much of a problem compared with other problems developing countries face (weak data again),

especially compared with underemployment. The data are even worse on underemployment than on unemployment.

Under these circumstances prudence suggests an emphasis on policy constraints that tend to reduce growth and the use of abundant resources. Each developing country is unique; therefore, attempts to generalize about A.I.D.'s experience with employment generation projects is very difficult. Development, in a word, is site-specific, and what may be true of policy in one circumstance may be untrue or irrelevant in another. Development projects tailored successfully to one economic environment may fail in a similar environment in a different country. It remains true, nevertheless, that the "menu" of policy recommendations suggested in the A.I.D. Blueprint for Development contains the mix of choices that must be examined for each country.

While policy environments may be defined and analyzed systematically, no common methodology is being applied to the evaluation of A.I.D. projects, even within a given area such as vocational education or export promotion. This means that the data relating to the characteristics and success or failure of projects cannot be compared systematically. As a result, any generalizations about A.I.D.'s experience in employment generation must be presented cautiously and interpreted with great care.

At the most general level, a review of the policy environment in countries with A.I.D. projects in employment generation suggests that the policy environment was not overly hostile to the projects' success. For example, the review of the Kenya projects showed that price distortions in Kenya were low to medium and the economy was growing fairly rapidly. One inherent problem in that picture, however, was the extraordinarily high population growth rate (4 percent), which in the late 1980s is associated with acute and rapidly deteriorating conditions in labor markets.

By contrast, the sampled projects in Peru occurred in a context of medium-to-high policy distortions that would have seriously and negatively affected employment and the projects in this area. The policy environment in Ghana, Nigeria, Bangladesh, Dominican Republic, and Honduras was even more hostile to successful employment generation projects.

This paper makes no attempt to categorize countries according to high or low distortion in general based on our indices of policy because a somewhat arbitrary weighting would be required to average the parts (foreign exchange, factor, and product pricing). Also, while all policies are important to all projects, some are more important than others. We can thus frame the question: "Under what policy conditions do what kinds of employment generation projects work well?" Thus, while an environment might represent high distortion in general, some aspects of the environment might be less unfavorable. Therefore, it is worth examining A.I.D.'s projects in more detail in the context of the kind of policies most important to the projects' success. These relationships are summarized in Table 15. Finally, it must be noted that international shocks were important in the late 1970s and early 1980s, providing a "wild card" in an already confusing policy array.

Successful vocational education projects require a rising demand for labor, and this demand is most directly linked to the growth rate and to the relative cost of capital and labor. While Nigeria's growth rate was high, the capital market was highly distorted and labor itself tended to be overpriced. Ghana did not even have the benefit of a high growth rate. In contrast, high growth rates in Ecuador, the Dominican Republic, and Thailand were combined with relatively more favorable policies. Other

things aside, one can conclude that employment generation projects made little economic sense in Nigeria and Ghana and more sense in the other three countries.

Labor-intensive infrastructure projects, if they are to have positive secondary and tertiary effects on production and employment, must occur in a reasonably well-integrated economy. Backward and forward linkages (suppliers and purchasers) affect the income multiplier of a given expenditure. Generally, the higher the degree of industrialization, the greater the likelihood that the parts of the economy will be tied together in functional ways. Urbanization also reflects integration in terms of access to markets and the economies of scale achieved through "clustering" of suppliers in various lines. Kenya, with its low level of integration and medium levels of policy distortion, seems inhospitable to labor-intensive projects. Second- and third-round effects will be minimal under these circumstances. Both Indonesia and Jamaica had medium levels of integration, but Jamaica has policies designed to reduce employment and to weaken projects that would stimulate employment. Capital was very underpriced, and labor was very overpriced.

Another area of concern in labor-intensive projects is their great dependence on private contractors. Unless there are specific contractual obligations to the contrary, a contractor will tend to minimize the cost of production in carrying out a given task. Thus, overvalued exchange rates, overpriced labor, or underpriced capital will work against employment generation in such projects.

Table 15. Comparison of Economic and Policy Environments in Four Types of Sampled Employment Generation Projects

Food-for-work projects were excluded from Table 15 because it is not possible to isolate a single aspect of the policy environment as more important than another to the success of food-for-work projects. However, special note can be taken of the extent to which food-for-work projects create permanent productive assets. Aside from the obvious case of poor maintenance, assets can be wasted if they are created in an economic environment in which they will not be used. A high rate of growth may be the single best test of whether such assets will be used productively.

The success of export promotion projects depends heavily on appropriate exchange rates. Overvalued exchange rates reduce exports and tend to increase imports. Only Kenya had low levels of exchange rate distortion (exchange rates were rather high in the 1970s but improved in the early 1980s), combined with medium levels of inflation and distortion in capital and labor markets. Uruguay had greatly overvalued exchange rates, and these were combined with high distortion in agricultural taxation and capital costs. Honduras had medium distortion in exchange rates and capital costs but high distortion in labor costs. Thus, an increase in exports, other factors aside, would tend not to be associated with increases in employment. (Because the project in Honduras was based on a farmers cooperative, this consideration is not applicable here.) The results of export promotion projects in these three countries were very mixed, with the Honduras project marginally successful, the Uruguay project marketing about 40 percent of increased production locally, and the Kenya project failing to reach planned export levels.

Of the 11 countries with sampled small-scale enterprise credit and technical assistance projects, Chile had a high rate of inflation and Ecuador had a low rate; the rest had medium inflation levels. Inflation tends to decapitalize lending institutions where the price of credit is restrained. Effectiveness of credit programs is also highly dependent on the growth rate. Columbia, Ecuador, Togo, Ivory Coast, Kenya, and Botswana experienced good growth rates of 2 percent or more in per capita GDP. Peru, Chile, Upper Volta, Niger, and Benin experienced weak or negative growth rates, which tends to retard growth and profits in the enterprises borrowing capital. In addition, most of the countries with low growth rates had low levels of integration (therefore weak spread effects from capital usage), medium to high levels of distortion in capital markets, and mixed levels of distortion in labor markets. In general, these countries appear to be poor candidates for credit or technical assistance projects. Nonetheless, some of the projects in these countries succeeded rather well (in Chile, for example).

This brief discussion of policy constraints on the success of employment generation projects is meant to be a reminder both of the importance of policy and of the difficulty of generalizing from the policy environment to the probable degree of success of the project. There is no body of theory that suggests that sound policies ensure project success or that weak policies doom the project to failure. For example, project design can often compensate for awkward local conditions or implementation can be brilliant, overcoming both poor design and policy.

Equally important in understanding a project's effects is the difficulty of demonstrating causality. There are simply too many intervening variables to attribute observed development, for example, increased employment, to the project directly, even if this outcome was the primary intent of the project. Some of these variables have been noted above, such as overall growth rate or changing levels of price distortion in labor and capital markets. All of this means that systematic comparison of the effects of projects is difficult.

4.2 Some Implications Drawn From A.I.D. Experience

Programming implications that can be drawn from A.I.D. experience with these five types of employment generation projects were presented in Section 3. Also, Appendix A contains a list of some of the conditions appropriate to the success of projects; the list was derived from the sampled A.I.D. project experience and from development literature. Some generalizations about employment generation projects and the place of such projects in the A.I.D. portfolio are ventured below.

Although employment has been of continuing concern over the years, it has usually been viewed as a by-product of growth rather than as a problem that can be attacked directly. This can be sensed from A.I.D.'s annual Congressional budget presentation in which currently the only budgetary allocations specifically for employment generation are for further research (in the Bureau for Science and Technology). The cash transfers to Jamaica, titled Production and Employment, are intended to alleviate constraints that inhibit growth rather than to increase employment as such (see Section 1.2). In effect, the "A.I.D. system" appears to be telling us that employment is not a goal that can be attacked directly within A.I.D.'s institutional and resource constraints. In a sense, everything A.I.D. does can be said to affect employment, either through the size and quality of the labor force or through the growth of demand for labor. Although this is true, the effects will occur in the long term while, in contrast, daily newspaper accounts of growing poverty and strife describe problems requiring immediate attention.

Employment as a component of growth follows from standard neoclassical economic analysis used by all major donors today. Some contemporary projects in A.I.D. are targeted on employment, but with the growing importance of nonproject assistance, and of cash transfers within that budget category, one can question the future importance of increased attention to employment as such.

There is considerable controversy over the so-called population issue, on which there are several intellectually respectable and divergent points of view. At the programming level, however, the evidence suggests that in some countries rapid rates of population increase will put increasing pressure on labor markets so that open and disguised unemployment will soon become not only an economic problem but also a political one. Under this circumstance, the challenge for A.I.D. programming will be to balance the traditional approach, which emphasizes improving the policy environment, and a more "activist" approach, which involves attempts to intervene directly in labor markets.

Historically, direct action to generate employment has been of mixed success. Even projects that appear to have obvious advantages to this end (food for work, for example, and labor-intensive infrastructure) are often complex to design and expensive to carry out, while they frequently yield relatively small employment dividends and create assets that are not available to the poor. Growing economic, social, and political crises in many developing countries suggest that an important task facing A.I.D. in the immediate future is to gain a greater understanding of the circumstances under which direct intervention in labor markets might be effective. This tension between accepted policy guidelines and their long-run effects, on the one hand, and growing short-run economic and political crises, on the other, may represent one of the more important management problems for A.I.D. in the coming years.

A sense of urgency in some areas of the world has skewed A.I.D. assistance toward rapidly disbursing transfers of various kinds. Nevertheless, long-term development planning will continue for these and other areas. The lesson of the last four decades is that markets may be less unkind to the poor than are bureaucrats. This follows from the fact that private parties apparently pay more atten-

tion to prices and costs than do governments, with their wider agendas. This being the case, development appears to work best, and equity is better served, in those countries with strong private sectors. Nations that have undertaken widespread central planning, state ownership of productive assets, and direct market interventions have given socialism a terrible name. And yet urgency will push political leadership toward direct economic action again and again. In this context, does A.I.D.'s experience with employment generation suggest any "strategy" lessons?

One such lesson seems to stand out: developing countries have had little success with production planning and enterprise management, and there is little reason to believe that donors are any more adept at these tasks. Most output projections, for example, have turned out to be worthless, as have estimates of productivity, input requirements, and the like. What is needed instead is policy planning, which reduces the emphasis on projections and concentrates on creating an economic milieu in which decentralized decisions will tend to be correct ones in light of a country's development potential. From this perspective, A.I.D.'s comparative advantage, especially as the number of personnel is reduced over time, would seem to be at the policy level. Thus the planning in which A.I.D. engages would be policy rather than production oriented. Although there will always be exceptions, these circumstances suggest that A.I.D.'s attempts to stimulate employment directly will often be viewed as forced and of limited value. Such employment generation projects are management and sometimes resource intensive at a time when both are subject to increasing constraint.

As a corollary it might also be suggested that most donor assistance generally needs to move away from the continuing emphasis on new projects. Many developing countries are not capable of productively managing even existing enterprises, and the poorest have in many cases abandoned old projects at the same time that donors were helping them start new ones. Further, in many cases it can be shown that any new capital injection will yield a higher return if it is combined with capital already in use (e.g., buildings). This does not mean that in the long run, with an increasing emphasis on program assistance and policy reform, fewer A.I.D. resources will be in project form. On the contrary, although heightened program assistance flows today reflect considerable urgency, as countries become stabilized the need for program assistance should fall. Also some long-run problems are well suited to aid interventions in the project mode.

This paper has discussed the policy environment as it relates mainly to distortions in foreign exchange, factor, and product pricing. These are indeed large pieces of the economic environment affecting individual enterprises. However, this approach needs to be supplemented by an equal emphasis on what might be called the "administrative environment." This would include, beginning with Adam Smith, "honest weights and measures," and would extend, for example, to ease of entering business, predictability of government actions, an enforceable system of contracts, a reputable system of public accountancy, a system of property rights, the adequate provision of what has been called social overhead capital, a broad-based system of primary education, and a system of risk sharing. This partial list is a reminder that these institutional characteristics are as important in determining how effectively a country uses its resources as any configuration of policies. In many countries today these institutions are dysfunctional, discouraging an enterprise before it even gets started and inhibiting its growth once it is underway.

Historically, institutional change occurs (1) when the possibilities of such change are known, which, in turn, rests on information flows; (2) when the present discounted value of change exceeds the cost of such change; and (3) when it is reasonably certain that the gains (point 2 above) may be retained by the innovator, which suggests efforts to reduce risk and uncertainty and to establish

property rights. There is no apparent way to quantify the gains made through institutional change in the abstract. Nevertheless, it is not unreasonable to speculate that A.I.D. resources directed toward such change may have a quantitative and long-lasting impact on employment equal to that gained from direct employment generation projects.

Employment generation projects carried out by A.I.D. in the 1970s and early 1980s were a mixed success. Some in good policy environments failed, while some in hostile environments succeeded. The costs of job creation seemed to vary widely among projects and in some cases were so high as to be economically indefensible (whether they were politically defensible is a different question). Without better knowledge, nevertheless, the sampled projects suggest the need for some special justification of projects in policy environments that appear to doom them to failure. A purely political justification by itself is rather misleading to policy managers and programmers because it ignores the costs and benefits to be achieved politically through alternative projects that might be more productive.

Special note must be taken of two areas requiring continuing and rather urgent attention among donors. First, given the extremely adverse debt position of developing countries and the continuing and growing need for imports, export promotion will drive policy formulation for years to come. A.I.D.'s efforts to date to stimulate exports merit special study. At the same time, however, because of the growing difficulties encountered in world markets by new exporters, some countries will apparently need an agriculturally oriented strategy in which agriculture rather than exports is the leading sector, setting the stage for eventual industrialization. Second, the urban informal sector, with all its problems, will continue to be the largest employer of new entrants to the labor force for decades to come. This sector has been hurt badly in the past by general policies that inhibit new enterprise and by a policy cluster known as import substitution. As this strategy is now being rejected by increasing numbers of developing countries, or at least being balanced more rationally with other strategies, further attempts to understand the vitality of the informal sector may pay large dividends.

As a final note, one problem encountered in this study merits highlighting. This was the problem of the empirical basis for the study. From the outset the study was hampered by the paucity of evaluations available and by their highly variable quality.

For reasons that do not need recounting within the Agency, most evaluation resources are used by the regional bureaus for ongoing and end-of-project evaluations. No common methodologies are used, even for given types of projects. Some evaluations reach A.I.D. bureaus in Washington, some do not. Some evaluations that reach Washington are deposited in a data file or library repository, some are not.

This suggests that the regional bureaus, which carry out most of the evaluations, have no system of evaluation. Instead, ad hoc evaluations are carried out to satisfy various administrative and other requirements, and occasionally these are fed back into project design in the fortunate instance when a single individual is involved with both functions. Given the turnover of personnel, however, some unknown but apparently rather high level of knowledge concerning what worked and why in the case of a given project is lost forever. While such a system might be consistent with local Mission autonomy, and may fit in well with growing Mission autonomy under present plans, it represents a rejection of the benefits of social science so widely sought in other lines of activity.

A modest beginning can be made toward systematizing evaluations and their results by coming to some agreement on the rudiments of evaluation in various areas. For example, the basis for calculating the cost per job created can be examined and a consensus reached on the appropriate basis to be used in evaluation. Similarly, ways of measuring the number of jobs created under various schemes can be outlined. Without some commonality in evaluation, systematic comparative examination of projects is impossible.

To sum up, this review of employment generation projects uncovered no scandals, no wildly irrelevant projects. Some resources were indeed wasted in the economic sense, and an outside observer must assume that there were compelling noneconomic reasons for the project. Vocational education programs, as tools of employment generation, frequently had poor payoffs, suggesting caution in their future use. Labor-intensive infrastructure and food-for-work projects both seem promising on paper, yet encountered multiple problems and typically affected relatively small numbers of workers. In both cases, but especially in food-for-work projects, economic analysis needs to be strengthened if such projects are to play a more effective role in development.

Export promotion is in its infancy within A.I.D., and projects in this area are closely tied to exchange rates. A World Bank study (Agarwala 1983) suggests that exchange rates were the single variable most closely associated with economic growth rates. Small-scale enterprise credit and technical assistance projects provided some employment, but sometimes at great cost per job.

Each reader of this report can probably recall an employment generation project that worked quite well. Yet, the question is not whether projects can generate employment. In many cases they can, and everyone would judge them to be effective. Rather, the question needs to be stated in this way: Is a given project the best use of resources to achieve the employment goal?

The impression one derives from the small sample of projects reviewed in this study is that considerable work and resources went into efforts to directly increase employment. Yet, in general, the results were middling or disappointing. Women were generally given no special consideration, or it was given as an afterthought. Equity was sometimes not well served. Management was always difficult, and projects were hostage to an economic and administrative environment beyond the control of project managers.

Thus, in a world of unlimited needs and constrained A.I.D. budgets, the question of what to do to promote employment becomes one of priorities. Budget allocations within A.I.D. suggest that the A.I.D. "system" has already decided the issue, concentrating on projects with longer term payoffs rather than on short-term employment, and relying more on policy change to increase employment. And yet, emerging crises draw attention back to efforts to improve employment in the short run. This short-versus long-run perspective may be one of the central management problems for A.I.D. in the years ahead. Policymakers will be helped in this circumstance by a strengthening of project and program evaluation so that experience becomes a better guide to practice.

APPENDIX A

SUGGESTED APPROPRIATE CONDITIONS FOR PROJECTS IN EMPLOYMENT GENERATION

Rapid population growth in developing countries during the last three decades has retarded a transformation in the sectoral structure of the labor force. Vast numbers of people remain in low-productivity agricultural or off-farm pursuits. Also, policies designed 30 years ago for macroeconomic management of the economy, and those designed to affect a particular component of the economy, have often resulted in inefficiencies that have weakened growth and hence employment in both the formal and informal sectors. In some cases, reduced population growth rates will have a stimulating influence on growth and per capita gross national product (GNP) only after a generation or two, if at all, assuming an appropriate policy environment. Even such an environment may have little effect, however, if external shocks are too severe.

Thus, sometimes steps can be taken through projects that will influence positively the rates of formal and informal employment, and sometimes they cannot. The following sections present a brief and highly selective list of "appropriate conditions" for the five types of projects surveyed in this report. The list includes conditions conducive to successful implementation of these types of project and a series of "if...then" conditional statements as recommended in the literature. Of course, the presence of these conditions does not ensure the success of projects, but the absence of these conditions does suggest the likelihood of failure. Following this list is an outline of the principal employment-related policy areas noted in a 1983 Project Paper. In effect, the list encompasses the policies that a government might consider as it contemplates its employment problem.

1. VOCATIONAL EDUCATION

1. In a burgeoning economy, it is not necessary that every person trained be offered a job immediately. It is necessary, however, if training is to make economic sense, that there be some rational expectation that the economy will move forward while the newly acquired skills are still fresh and remembered. In an economy that is expected to rock from crisis to crisis, higher returns on investment may be had elsewhere.

2. Job creation through increased productivity is at the heart of development. This implies that the policy environment must stimulate productivity increases, encourage the use of highly productive labor, and enable the gains from increased productivity to be widely shared. The linkage between development needs and job creation related to the training project is the single most important factor influencing project success.

3. Sometimes vocational training in formal educational institutions is effective, and trainees find jobs. Generally, however, the case against formalizing such education is strong, mainly because such training is static and out of touch with the job market. Yet there may be social or political reasons for providing such training (to "keep people off the street," for example), even in the absence of sound educational or economic reasons for such training. Also, in economies undergoing rapid structural transformation, apprenticeship training may not be sufficient, and a stronger case can be made for formal training geared to future needs.

4. The most successful vocational training programs are those in which the curriculum and methods of instruction remain flexible and highly responsive to labor-market conditions. This in turn suggests that a *prima facie* case exists for locating such training outside the ministry of education, with all the institutional inertia and vested interests that name implies. Instead, an autonomous institution governed by representatives of business, labor, and government may be a more flexible and effective way of developing human capital that will be put to use under market conditions. Under conditions in

which the government is the employer of last resort, however, the types of training received by those it hires is a somewhat trivial consideration. The effectiveness of such a government labor force will be determined by factors clearly transcending the training.

5. The following lessons are quoted from a recent World Bank study (Metcalf 1985).

- Social, corporate and private returns to vocational training in developing countries appear to be high enough to justify expanding training activity. However, training in industrial institutes and vocational secondary schools is less cost-effective than more informal firm-based training.... Also, Latin American data indicate that there may be substitutability between schooling and formal institutional vocational training.
- In some sectors a more labor-intensive method of production is economically more efficient than current methods. This may, in turn, imply the need for more, not less, skilled labor and vocational training. Further, given technology and output, unskilled and skilled labor appear to be substitutes, rather than complements, in the production process.
- Sophisticated production function analyses are plagued by statistical and measurement problems. If they are not resolved, estimation techniques are unlikely to be able to pick up any relationship between trained labor and output among firms. However, there are alternatives. Many input and output measures such as performance rating and downtime are available for more modest evaluations.

6. The following lessons are suggested in a 1982 study of A.I.D. experience with vocational education (Claffey 1982, 7).

- A.I.D.'s better projects are in functional, production-oriented skills training conducted outside of the formal education system and closely tied to local employment opportunities, including self-employment in the informal sector.
- The case against formal schooling rests on external inefficiencies (ineffective articulation with employers, lengthy turn around time in responding to employment needs) and internal inefficiency (weak staff, outmoded equipment, inappropriate curricula or pedagogy). Formal schools in less-developed countries, however, must also be content with the fact that vocational schooling tends to be held in rather low esteem by those individuals who have been able to stay in the system.
- There is a tendency in A.I.D. to work through public rather than private sector entities, which often results in weak linkage with industrial sector employers, many of whom are in the private sector. Greater efforts must be made to involve private institutions in training tied to subsequent employment.
- There is lacking a systematic analysis of current A.I.D. projects for vocational education or training that considers comparative costs per trainee/ graduate and

comparative placement ratios, together with hypotheses relating to variations detected. [This current brief survey of such projects indicates that this lack remains evident in 1986.]

2. FOOD FOR WORK

1. A public works project must be small enough that wage payments in kind do not exert a disincentive effect on local agricultural production.

2. A public works project must be designed around indigenous work cycles. The only exception is when there are substantial numbers of unemployed, landless peasants willing to work who are not employed as day laborers even during the peak agricultural employment seasons. If this condition does not hold, then part of the agricultural labor force may find it more advantageous to gain employment on the works project. This may have the effect of decreasing aggregate agricultural production.

3. The project will work with the fewest complications when there is inadequate local food production and local food is not available commercially. If local food is available commercially, the in-kind compensation may undermine indigenous food distribution channels and create a dependence on outside food sources. If this condition does not hold, then a public works project can still be undertaken but with wages rather than food as the compensatory form.

4. If the food shortage in a region is so great as to have weakened the people physically so that they cannot do productive work, then food aid alone probably should precede any attempt at creating productive assets.

3. LABOR-INTENSIVE INFRASTRUCTURE

1. Labor-intensive infrastructure projects have typically been implemented in areas of highest population density to ensure easy access to the labor pool needing productive employment. If carried out in low-density rural areas, labor camps and the like must be established, changing both the nature of the entire program as well as the character of the participating workers, who may move from site to site along with the project, possibly even developing a "welfare mentality."

2. Timing is critical. If the project is designed to use slack labor during nonpeak agricultural seasons, funds and complementary inputs must be allocated on time to ensure that the project does not run over into the peak season. Planning should encompass room for slip-ups to minimize the danger to both the project and to the local agricultural economy.

3. Projects or subprojects ought to be less than 1 year in length in any particular location to discourage dependence on such projects.

4. Contractors are an attractive choice for carrying out labor-intensive projects. However, if the policy environment encourages capital intensity, a contractor operating in this milieu must be

guided by clear conditionality stipulated in the project to overcome this tendency to substitute capital for labor.

5. Perhaps in the case of labor-intensive employment more than any other type of project, cultural factors may dominate. A.I.D.'s manual on creating rural employment (Hook and Thomas 1977), for example, notes that in some countries traditional employment arrangements for landless laborers bind them to a patron on an annual basis. "Such laborers may not be permitted to take rural works employment even if their patron does not need them. If they are employed, they may be required to give their earnings to their patron. In some countries, caste or other social distinctions make it impossible for certain unemployed persons to accept rural works employment" (p. 23).

6. In most cases, there should be strong central control over labor-intensive infrastructure projects, but decentralized administration. A useful method of specific project guidance is to allow local governments or organizations to select projects based on a narrow criterion or on priorities set by the central government or by A.I.D.

7. Government policies in many important ways can be supportive of or antagonistic toward labor-intensive infrastructure projects. The following are some important considerations that must govern project design:

- If government policies encourage the substitution of machinery for labor, or if farmers are offered financial incentives to mechanize, then labor-intensive infrastructure projects attempting to absorb labor into the primary sector will be unsuccessful.
- Long-term secondary and tertiary effects of projects are critical to permanent improvement in employment resulting from labor-intensive infrastructure projects. If one intent of a project is an increase in local manufacturing (e.g., in simple manufacture of agricultural tools) then market-clearing rates for capital become crucial.
- Overvalued exchange rates can be fatal to employment creation, even for intended labor-intensive infrastructure construction because the pressure on all parties will be to minimize costs by substituting imported equipment for labor.

8. The appropriateness of infrastructure projects in rural areas depends greatly on the general health of the agriculture sector. Such projects will improve labor absorption in the primary sector under the following conditions:

- When agricultural policies provide incentives to production by offering protection against price declines or by ensuring profitable prices, then farmer demand will stimulate growth of off-farm rural employment as well as on-farm employment.
- Although subsidies are rightly viewed with some suspicion as economic tools of development, when they are provided for labor-intensive production intended for domestic or export markets, the primary sector can play a lead role in development.

- If agricultural inputs are made available at rates and in programs that encourage their application in labor-intensive ways, then labor absorption will be increased and rural infrastructure projects will have a higher economic payoff.

9. Other government programs can enhance labor-intensive production. Such programs can include, for example, a small- farmer credit program or a rural infrastructure or agricultural program outside the specific project, which promotes labor- intensive practices, tax patterns, and rural-to-urban terms of trade that improve rural living standards.

10. If the necessary management and supervisory skills do not exist, then the project could include a training component that, through publicity campaigns or with the help of local leaders, would draw on workers not previously employed in these capacities. A labor-intensive project that merely draws leadership away from other sectors can hardly ever be justified on economic grounds.

4. EXPORT PROMOTION

1. Pricing policies that reflect world commodity prices and scarcities of domestic factors of production are especially critical in export promotion. This obviously includes appropriate exchange rates. Equally important although less obvious, this also includes a wage policy tied to productivity, not to social benefit. Welfare programs need to be completely outside the wage system if labor cost is not to be distorted upwardly, causing the unit labor cost of exports to rise and so weaken their world competitive position.

2. The necessary infrastructure must be in place at the outset of an export promotion program, including port facilities (airports, trucking terminals, marine ports), storage and transportation networks, communications (telegraph, telephone, radio and landlines, and so on), and information flows, especially foreign market information.

3. An active export promotion program requires active and competent government backing. The private sector requires help in gathering marketing information, setting up trade shows, conducting feasibility studies, and sharing risk.

4. Products chosen for export must have a comparative advantage, rely on relatively elastic factor supplies, and enjoy relatively high price and income elasticity of demand. Ideally, export promotion projects should offer at least the hope of increased productivity over time, preferably on the basis of new technology to increase learning effects from the project.

5. SMALL-SCALE ENTERPRISE CREDIT
AND TECHNICAL ASSISTANCE

1. Policies that move an economy away from relatively free markets tend to impede small-scale enterprise development. For example, many items that are classified as intermediate or consumer goods on tariff schedules are capital goods for rural small-scale firms. Generally, small firms do not qualify for concessional exchange rates. Minimum wages have retarded the growth of new small enterprises and have inhibited the development of a permanent, skilled rural labor force. Simple licenses for business often constitute an insurmountable obstacle to small business. The message is that a major force for development, the small-scale sector, is profoundly and adversely affected by government policies that have dominated much of the developing world over the last three decades.

2. The removal of policies that are disincentives to agricultural production will generate an increased demand for many rural nonfarm goods and services, thus providing a fertile ground for credit and training projects in off-farm enterprise.

3. The tax system is central to healthy small-scale enterprise development. A sales tax, for example, that is applied to all stages of production discourages subcontracting and encourages vertical integration of production, sometimes in capital-intensive enterprises, thus squeezing out the small producer. An economy in which the tax system inhibits small producers is hardly appropriate for either credit or training projects.

4. The infrastructure must be adequate so that a small producer responding to increased demand can count on receiving necessary supplies.

5. The literature suggests that when employment creation is the most important criterion, priority ordinarily should be given to small- to medium-size industry rather than to microenterprise, to manufacturing industries rather than to service industries, and to service industries rather than to retail industries. Also, by concentrating on longer term investment rather than working capital, and new firms rather than existing ones, it will be more likely that employment will be maximized.

6. In projects where income inequality is a concern, a relatively large proportion of the loans should be small.

7. Generally, subsidized credit should be avoided. Thus, A.I.D.'s credit activities are best targeted to areas or sectors where credit is needed and where market rates can be paid, but where credit is institutionally unavailable.

8. Small-scale development requires a functioning market and respect for business as an occupation. It also requires that local consumers not view local products with disdain.

Principal Employment-Related Policy Areas

Sectoral Price and Growth Policies: Especially those that determine the level and distribution (both functionally and geographically) of sectoral incomes and hence household demand for consumer goods and services produced by small-scale enterprises. (Such enterprises account for the bulk of the employment of the rural nonfarm and urban informal sectors.)

Agricultural price and growth policies	Agriculture price policies Agriculture tax policies Agriculture technology policies
Industrial price and growth policies	Protection policies Trade policies affecting input prices
Other sectoral policies affecting incomes	Various

Employment Policies: Especially those that distort relative factor prices (and thereby create biases against the use of appropriate labor-intensive techniques) and those that have caused unemployment among skilled and semiskilled workers

Policies influencing relative factor prices	Credit/interest rate policies Exchange rate policies affecting capital goods and industrial inputs Minimum wage policies and other policies affecting the price of unskilled labor
Policies causing segmentation and unemployment in the skilled labor market	Unionization Government wage policies Corporate wage policies Other institutional policies
Other labor market issues	Other institutional factors, including education and training policies

Enterprise Policies: Especially those that create general biases in terms of scale or location, and those that create distortions at the industry level

Policies creating biases by scale or location	Business regulations Business taxation Control over resources (licensing/permits) Availability of industrial infrastructure
Policies directly influencing choice of technique	Technology regulation policies
Industrial promotion policies	A composite of many of the above

Source: Project Paper for "Employment and Enterprise Policy Analysis Project" (No 936-5426), July 1983, p. 14.

APPENDIX B

DESCRIPTIONS OF PROJECTS

1. VOCATIONAL EDUCATION

Ecuador (518-0001)

Small Business Development and Employment Generation

1978-1981 \$256,520

The Boys Working Center was founded by an American Jesuit priest initially to offer shoeshine boys an alternate way of life. It was eventually expanded to encompass the entire family and provide training, education, and behavior modification to the poor. Using Peace Corp Volunteers as vocational teachers, the Center attempted to expand its operations and become self-sustaining through various sideline enterprises. This project is unusual in many respects. It attempts to involve the entire family in the process, provides vocational training and placement, and, from a development perspective, attempts to provide an integrated program for the individual, touching on the many facets of poverty. The project was successful in these attempts, although participation was less than optimal. (This project is referred to herein as "Boys Working Center.")

Ecuador (518-0007)

Vocational Education and Placement of Marginal Youths

1978-1983 \$377,000

The Anzoatequi school in Guayaquil was established in the late 19th century. The school badly needed complete renovation before it could again begin to turn out graduates suited for the job market. A.I.D. provided funds for equipment and salaries for administrators to enable the school to become self-sustaining again. The school, similar to a technical high school for boys, provides an alternative to secondary education. The program was laced with administrative problems; the dropout rate was exceedingly high, and the school failed to establish productive links with local businesses. Nonetheless, the graduates were able to obtain jobs in their respective specializations. Had the area been stagnating, the school probably would have failed. Even with a local growing economy, however, it barely met its objectives. The school demonstrates how critical dedicated and versatile administration is in a vocational educational program. (The project is referred to herein as Anzoatequi or AZ.)

Dominican Republic (517-0146)
APEC Women's Training and Advisory Services
1981-1983 \$407,000

APEC, an organization of leading businessmen in the Dominican Republic, conceived of the idea of providing training and advisory services to women in the course of its efforts to obtain information on the needs of women and their employment opportunities. A survey conducted by the International Center for Research on Women found that there was inadequate demand in the formal labor market for women. The APEC project was then redirected to encompass training for self-employment, using existing vocational schools in the vicinity. The project was unsuccessful in its attempt to create self-employment opportunities for women because it did not sufficiently adapt its activities to the drastic changes implied by the survey. However, the project's organization enabled it to penetrate areas that traditional development activity does not generally reach and to provide a forum for women to discuss the factors affecting their lives. The women seemed to have benefited from the project, gaining a better understanding of their lives as well as group support. But the project did not create employment for the majority of the women participants. (The project is referred to herein as APEC.)

Nigeria (620-0802)
Opportunities Industrialization Center International
1971-1977 \$1,827,000

This project was one in a series of projects designed to apply the Opportunities Industrialization Center (OIC) concept (which originated with a vocational school in Pennsylvania) in Africa and Latin America. This was a prototype project, encompassing a specific philosophy of training: tailoring the training of the unemployed to meet specific job requirements. The Nigeria OICI project was the only project for which there was enough documentation for analysis. This project, like any other, was not without problems, some of which were severe. However, the school did turn out employable graduates and eventually became self-sustaining. The OIC design was coupled with the family-involvement concept and some aspects of behavior modification similar to those applied in the Ecuador Boys Working Center project already described. Also, the project had revenue-generating enterprises and strong, adaptable indigenous control. These characteristics seem to suggest that this kind of project would work well in any economy that has some demand for skilled labor. Although not brought out in the project documentation, one may speculate that the project was forced to be efficient by an extremely tight budget. This project demonstrates that a strong link can be made between business and vocational education, thus benefiting the entire economy (although in this project on an extremely small scale). (This project is referred to herein as OICI.)

Thailand (493-11-640-162)
Mobile Trade Training Schools
1966-1972 \$7,296,000

This project was started in 1960 by the Thai Government as a means of providing short-term occupational-skill training courses at the entry level for out-of-school rural youth and adults. The courses were given in provincial "polytechnic" schools and in local district primary schools. In the beginning, instructors used portable tools so they could set up shop classes anywhere. Later, equipment was purchased for units that could be transferred from one site to another after local demands had been met. In most cases these units became permanent because of the continuous demand by local residents. On a very limited basis, vans were used to reach more remote rural populations, but this feature was never a major factor in the project. The original project objective was to provide pre-employment training, but the objective was soon modified to include skill upgrading for employed persons and general skill acquisition. The evaluation judged that significant and lasting results were achieved, and the project's impact has been felt by both the educational institutions of Thailand and the rural population. Regional polytechnic schools were strengthened in the process.

Ghana (641-0063)
Opportunities Industrialization Center International
1973-1979 \$1,901,000

See description for Nigeria's OICI project. The Ghana project was approximately the same as Nigeria's OICI project, except for the former's more limited array of courses and the absence in Ghana of strong employer-school ties.

2. LABOR-INTENSIVE INFRASTRUCTURE

Jamaica (532-0035)
Jamaica Feeder Roads
1971-1977 \$9,989,000

This project is interesting in two respects. First, the project was politically motivated, emanating from a U.S. Presidential commission appointed to examine Jamaica's development needs after an unofficial visit by the Jamaican Prime Minister to President Nixon. Second, according to the impact evaluation, "the choice of the Ministry of Works as an implementing agent was administratively efficient, but brought the project under the authority of an entity more comfortable with high technology solutions" (A.I.D. 1980, ii). The Ministry of Works changed the project focus to capital-intensive infrastructure, and the evaluators argued that regardless of the method of implementation, the project was not economically justified. The project can be viewed as a case study of what happens when politics prevails over economics. As labor-intensive infrastructure projects are by their nature conducive to political use, it is unlikely that this project is an isolated instance.

Jamaica (532-0046)
Jamaica Integrated Regional Rural Development

1977-1983 \$9,740,000

The goal of the Jamaica Integrated Regional Rural Development (IRD) project was to relieve the problem of widespread unemployment and to revitalize the agriculture sector through soil conservation, road upgrading, credit provided through agricultural cooperative banks, improved housing and water, and agribusiness development. Evaluation concentrated on the goals stated in the logical framework: relieve unemployment and underemployment and reduce rural-to-urban migration through the construction of soil conservation works. Our discussion of the project is confined to these aspects. According to the evaluation, the project has not been successful, apparently not because of poor implementation but because the project design was intrinsically flawed. The evaluator cited three major problems with the design: (1) it set unrealistic, undesirable, or contradictory goals; (2) it proposed inappropriate technology; and (3) it made invalid assumptions about the agriculture sector. Thus, the project attempted to raise agricultural production while agricultural prices were falling. This project serves as a lesson of the need for careful planning and information gathering. (The project is referred to herein as "Jamaica IRD.")

Eastern Caribbean (538-0035)**Basic Human Needs--Employment Sector****1979-1983 \$12,500,000**

This project involved subprojects in Antigua, Belize, Dominica, Granada, Montserrat, St. Christopher and Nevis (St. Kitts), St. Lucia, St. Vincent, and Barbados. Each country was allocated a budget. Each then appointed project officers to submit requests to the Caribbean Development Bank for approval. They would then be allocated the necessary funds and materials. This project is interesting in that it provided a very top-down approach to rural works and also involved a rather large publicity campaign to attract workers. Evaluation for this project was completed while the project was still ongoing, but a Washington memorandum for additional funding contains some further discussion of results. The problems associated with this approach could serve as lessons for other types of infrastructure projects. (The project is referred to herein as "Eastern Caribbean BHN.")

Indonesia (497-0240)**Rural Works I 1974-1978, 1978-1983****U.S. funding: \$6.8 million**

This project developed from a previous food-for-work project that was considered successful but inappropriate for areas without food deficits. The project was fairly successful and was extended (497-0285, Rural Works II). This discussion is limited to the Rural Works I project because no final information could be located for the extension. The project aimed to strengthen local development efforts, create rural employment, and promote agricultural production. As a decentralized project that generated many new jobs, the project serves as an interesting prototype. However, it was not without flaws. The project took off so quickly that output was not always of acceptable quality, supervision was lax, and USAID/Indonesia was overwhelmed with projects to examine for reimbursement. The project extension dealt with some of these problems by initiating mid-level training. The project greatly increased communication between the Government and the villages and seemed to serve as a catalyst for community development. The project seems to have been one of A.I.D.'s better efforts.

Kenya (615-0147)**Kenya-Vihiga Rural Development****1971-1976 \$1,639,000**

Kenya-Vihiga Rural Development was a pilot project in rural development using self-help and labor-intensive methods. According to the Project Paper, the general strategy of the Government was to reduce the migration of relatively unskilled labor and school dropouts to urban areas by inaugurating a set of programs to increase the earnings of smallholders through credit, technical assistance and training, water supply, and roads. The project was not generally successful except for the roads component, and even the roads did not seem to have much impact because of low vehicular use. Evaluators wondered whether the roads component made sense without any complementary development projects. When the project officer left Kenya, the subproject accomplishments dwindled, but the officer had apparently designed a system and methodology for labor-intensive road construction that will be used in the future by the Government. (This project is referred to herein as "Kenya-Vihiga.")

3. FOOD FOR WORK**Bangladesh (388-0017)****Food for Work--Roads and Construction****1976-1984 \$2,373,000**

Wheat was distributed to laborers working on a piecework basis on canals, embankments, and road projects. Because the work was considered degrading, it can be assumed that only the very poor elected to work. Elites, however, planned, designed, and implemented the works projects. Project-created assets apparently lasted only until the next rain.

Lesotho (632-9812)**Food for Work--Soil and Water Conservation, Roads****1968-1980 \$3,900,000**

Under the direction of Catholic Relief Services, workers undertook soil and water conservation projects. Work was organized into five, 5-hour shifts for 3 weeks so that workers could also engage in other activities. Many of the workers were middle aged. Work was curtailed during peak agricultural periods. In all the sites evaluated, some funds had been used to support ineligible activities.

Cape Verde (655-0001)**Food for Work--Infrastructure, Roads, Field Clearing****1975-1982 \$3,900,000**

This project was designed to help meet food needs of Cape Verdeans affected by the Sahelian drought. The economic infrastructure created included dikes, retaining walls, aqueducts, cleared fields, and farm-to-market roads. A large amount of infrastructure was completed, involving about 10,000 workers a day. Workers were paid in wages and bought PL 480 commodities from the Government. The evaluation estimated that most families had at least one person involved on the project. Graft was found on the national level (for example, the Government apparently exported some food) and on a local level (where payrolls were padded).

Burundi (695-0108)**Food for Work--Rural Roads****1980-1983 \$926,000**

This rural roads project paid the local wage to about 500 workers a day, in addition to PL 480 supplements. Some training in areas such as masonry and driving was provided to local workers. Land-owning farmers employed on the project hired others to assist on their own land. Evaluators believed that the project had a substantial impact on income because of both the cash wages generated and the increased prices for products that could be sold in new markets accessed by the road.

Peru (urban) (527-0205)

**Food-for-Work Nutrition and Employment
1978-1979**

This project provided a grant to assist a PVO and its Peruvian counterpart to provide emergency food to the undernourished inhabitants of slums in Lima and to clean streets and dispose of garbage. A minor part of the grant was to be used for road construction, construction of community and child care centers, vocational education, and provision of potable water. Although two-thirds of the activities in the second period were street cleaning and garbage removal, later activities included other items noted above. The nutritional impact of the project was difficult to evaluate, and the late arrival of food commodities slowed the initiation of the project. Also, in the fourth quarter of the project, the diversion of commodities to other countries caused a reduction in the number of beneficiaries.

**Peru (rural) (527-0206
Reforestation
1979-1980 \$493,252**

This project was to assist a PVO to expand food-for-work activities in conjunction with reforestation in the sierra region. In addition to providing needed dietary supplements to the rural poor, the project was intended to help prevent soil erosion and generate temporary employment. About 1,000 workers were hired in 1980, and more than 7,000 landless and near-landless peasant campesinos received work near their communities. Campesino coops tended to limit the number of workers assigned to infrastructure activities. Food distribution reached only 65 percent of its target level, and seedling production and planting reached within 3 percent of the target. However, problems were caused by continuing land disputes and destruction of trees by former land owners and damage caused by droughts, freezes, and animals, all of which combined destroyed 10 percent of the plantings. Uncertainty prevailed on the incentive side because of the official dispute over whether eucalyptus trees (90 percent of the project, used by campesinos for house construction and firewood) could be cut in the 7th or 18th year.

4. EXPORT PROMOTION**Honduras (522-0120)****Agro-Industrial Export Development****1976-1979 \$1,700,000**

This project funded two demonstration subprojects to increase the Honduras's capacity to export nontraditional fresh and processed fruits and vegetables to the United States. One subproject, involving a domestic company (Majores Alimentos), was to export processed tomatoes obtained from a small farmer cooperative. The other subprojects involved a U.S.-based company (Standard Fruit) that had been exporting traditional crops and wished to expand into nontraditional areas. The domestic company lost interest because it did not wish to deal further with small farmers or to export beyond Central America. The Standard Fruit Company subproject was fairly successful because small farmers supplied tomatoes and cucumbers, which were then sent to the U.S. market. This subproject was rife with difficulties, however, including quality control, marketing, and government support. The main thrust of the evaluation is that export-development projects take time to become self-sufficient and if aid is withdrawn before self-sufficiency is achieved, all potential gains are lost. Also, the evaluation suggested that the private sector is generally more willing and able than is the Government to provide farmers with the necessary technical assistance to produce exportable products.

Uruguay (528-0103)**Agro-Industrial Development****1975-1979 \$5,000,000**

The project was part of a joint effort by the World Bank and the Government of Uruguay to stabilize and restructure the Uruguayan economy while stimulating a shift toward export promotion and basic development objectives. The World Bank funded general industry export development while A.I.D. sought to develop food-processing capabilities by providing credit to create the infrastructure needed by the food-processing industry. This seems to be a classic example of how A.I.D. fits its activities into a major transitional program, following rather than leading. The USAID Mission in Uruguay was disbanded before the program was completed, and no major conclusions were made regarding A.I.D.'s effect on the project. However, statistics cited in the evaluation indicated that progress was being made. A.I.D.'s role was primarily to provide capital equipment, especially for export infrastructure. Although the project appeared to be successful, the possibilities for replication seem slim because of the large size of the entire integrated program.

Latin American Agribusiness Development**Corporation (LAAD) (596-0068)****Agribusiness Development****1975-1979 \$5,000,000**

The Latin American Agribusiness Development Corporation (LAAD), a private investment and development company incorporated in Panama, with principal offices in Miami, Florida, sought to identify nontraditional exportable products and fill existing gaps in the export process through capital, management, training, technical, and financial assistance. Participating countries were Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua. Through development and expansion of agricultural

systems and enterprises, LAAD was to increase opportunities for the rural poor. The first loan was spread over 36 subprojects for export and potential export. Subprojects directly for export included cut flowers, wood products, rubber processing, seeds, spices, fresh and frozen vegetables, and turkeys. LAAD appears to have had mixed success with the project. Although many of the subprojects were successful in creating exports and involving the rural poor, LAAD was unable to become self-sufficient through equity financing, and its activities were constrained by the small size of its own staff.

Kenya (615-0160)

Livestock Development

1977-1982 \$3,250,000

This project was part of a larger, more extensive program for Kenya (A.I.D.'s input constituted about 33 percent of total donor assistance) extending back to 1968. The total program involved improving cattle management by establishing group, company, and commercial ranches; increasing rangeland development through water facilities and access roads; improving marketing facilities by establishing new markets; upgrading existing holding grounds and improving stock routes; and providing technical services related to equipment, maintenance, repair, and training in ranch management. The program also included a rangeland conservation component. A.I.D.'s role in this project included funds to ranches to procure cattle, equipment, and technical services for infrastructure. A.I.D. also carried out a meat-processing study. The evaluation noted that new ranches were established and existing ones expanded, but at a cost of increased debt and environmental degradation, which outweighed the benefit of the program. Also, expansion of beef production was not accomplished because the Kenyan Government did not raise beef prices enough to make beef production profitable. The evaluation was critical of design flaws resulting from faulty assumptions and argued that A.I.D. management was weak.

5. SMALL-SCALE ENTERPRISE CREDIT AND TECHNICAL ASSISTANCE

Chile (513-0287)

Small-Scale Regional Development

1976-1977 \$100,000

Because of a sharp rise in unemployment, private industry donors had cut back funding to a private voluntary organization (PVO) that had launched a number of small-scale enterprises. The Small-Scale Regional Development project consisted of a 2-year A.I.D. operating grant to the PVO for technical assistance, feasibility studies, and construction of prototypes to improve and expand the PVO's initiation of small-scale enterprises. The project was directed toward the poorest regions. Generally, the targets were met, and the Government funded the project at the termination of A.I.D. funding.

Colombia (514-0181)

Small Industry Development

1975-1978 \$5,000,000

The Small Industry Development project attempted to remove constraints on small- and medium-size industry development by transferring successful managerial and production technology techniques. These efforts were supported by greatly increasing the credit funds available to intermediary institutions that were supplying credit to small, labor-intensive industries. The goal was increased employment and enhanced productivity in the affected enterprises. The credit goal of the project was achieved, although distribution did not match the original targets. The technical assistance component was judged a failure largely because the needs were so great that the technical assistance made little difference.

Ecuador (518-0098)

Small Enterprise Development

1971-1977 \$4,450,000

This project provided a loan to establish a special fund in the trust department of the Central Bank of Ecuador. The fund could be used by qualified local participating financial institutions, including commercial banks, to supplement their own resources in making loans to small entrepreneurs who had not been regular clients of these institutions. The goal was to promote the small industrial sector. The loan was combined with training of both recipients and distributors of the credit in such fields as industrial techniques, business management, and decision-making for bank officials and small businesspeople. The objectives of the loan were accomplished, and the project stimulated follow-on Inter-American Development Bank and World Bank loans.

Peru (527-0176)

Rural Enterprise Development II

1979-1983 \$8,000,000

This project provided loans to increase the capitalization of the revolving Rural Development Fund that extends credit for the creation and expansion of small enterprises. High collateral requirements imposed by law, coupled with very conservative banking practices, had made it nearly impossible for most small entrepreneurs to obtain institutional credit. The geographic isolation of small credit clients made applying for credit and subsequent loan supervision difficult. The evaluation concluded that the economic results justified continued program support and extension.

Kenya (615-0174)

Rural Enterprise Development

1977-1981 \$400,000

This project, administered by Partnership for Productivity (PfP), provided support to Kenya's Rural Enterprise Extension Service. PfP attempted to demonstrate that extension services are a cost-effective and replicable model for transferring appropriate and individual management skills to small-scale rural businesspeople on their own business premises. The evaluation judged the PfP model to be a replicable extension training program. However, the evaluation also found that the project suffered from administrative problems attendant on the "Kenyanization" of PfP project staff.

Entente Fund (625-0715)**Entente States: African Enterprises****1973-1982 \$17,495**

A.I.D. extended a loan to the Mutual Aid and Guaranty Fund of the Entente to be relaned to development banks in the five member states. These banks were to provide subloans for the creation and expansion of small- and medium-size enterprises. Target beneficiaries were entrepreneurs who had viable projects but who lacked the full equity required. Very little technical assistance was provided to loan recipients, although the program called for such. The evaluation suggests that positive achievements would have been much greater had this been included, and beneficiaries interviewed stated they would have preferred more technical assistance.

Lesotho (632-0217)**Entrepreneurship Training (OICI)****1980-1983 \$33,012 (1/1/1980-7/31/82)**

Beneficiaries attended 6-week OICI business training courses over a 2-year period. Topics included record keeping, accounting, legal issues confronting small enterprise, production and production planning, financial management, personnel and customer relations, and business planning and budgeting. Most beneficiaries operated cafes and general stores, and nearly half were women. The evaluation concluded that while the courses apparently made the entrepreneurs better competitors, little additional employment was created because most beneficiaries were in economic sectors that on average added no new employment. The evaluation suggested that OICI target its training on linkage development and economic growth. Credit, especially for working capital, was cited as a constraint for some, and the evaluation suggested that OICI take an active part in helping beneficiaries develop proposals that would be funded by banks.

Botswana (633-0212)**Rural Enterprise Extension Service****1978-1982 \$500,000**

The project provided an operating grant to Partnership for Productivity (PfP) to provide training to small-scale entrepreneurs, most of whom were women, in such business operations as simple book-keeping, unit costing, and cash control. The project also included training a program for PfP extension personnel. Evaluation concluded that the project had a positive impact, although it was difficult to quantify in terms of changes in profits and reinvestment of a firm's capital.

Botswana (633-0228)**Small-Enterprise Development****1982-1985 \$452,000**

The goal of this project, which was administered by Partnership for Productivity (PfP), was to stimulate and expand small businesses in the Old Naledi ward in Gaborone. PfP produced a good baseline survey, began a needed microcredit scheme for small-scale enterprises, and worked to identify potential producers of wood burning stoves; however, project implementation was hindered by PfP's failure

to establish a clear plan to foster close interaction with clients and to train its staff to assist clients effectively.

Upper Volta (686-0219)
Rural Enterprise Development
1977-1981 \$642,000

This grant and technical assistance project aimed to encourage private business in rural areas through a combination of credit, management assistance, and technical advice. The project was judged successful and a follow-on was established to run to 1986.

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